

THE AUTOMOBILE

One Man's Family Tour from Coast to Coast



JACOB M. MURDOCK, of Johnstown, Pa., ended at New York at 2:07 o'clock on Tuesday afternoon a Pacific-to-Atlantic run of 3,674 miles, having covered in a Packard car the distance in 25 1-2 days of actual running, or, to be exact, in 32 days 5 hours 25 minutes gross between the times of start and finish. Mr. Murdock thereby set up new Pacific-to-Atlantic figures for a car operated by a single crew, though not, of course, equalling the record of 15 days 2 hours 10 minutes accomplished by the Franklin six-cylinder with shifts of drivers.

These figures, however, convey most inadequately the value of the present performance, which can truly be said, all circumstances and conditions considered, to have been the most remarkable and convincing demonstration of the touring practicability of the automobile that has yet been given.

The Owner Drove Entire Distance.

Mr. Murdock, an out-and-out amateur owner, drove the entire distance himself. He carried in his car a full complement of seven passengers, comprising his wife, three children, a guest and a mechanic. He drove solely by day and rested on the five Sundays of the journey and lay over two days besides, one on account of rain and the other for recreation at his own residential town. In a word, Mr. Murdock's was an out-and-out touring run and in no sense a race for record.

His average mileage per running day was 146.36 miles. His longest day's run was 244 miles, between Pittsburg and Philadelphia, and his best Western mileage 241 miles, between Cheyenne and North Platte, which was followed by a 235-mile run the following day to Columbus, Nev. The total weight of the Packard, including equipment, fuel and passengers, carried as far as Ogden, was 5,500 pounds, barring a 150-pound lessening of weight through Nevada.

The performance of the car itself was, of course, equally as noteworthy as was the driving of its pilot. A broken ball bearing in the front wheel caused three hours' delay and a burnt connecting rod bearing through the oil running low cost five hours. That was all the mechanical stoppages. The Continental tires performed as well as did the engine. On reaching New York the car was running on its second set, and but two punctures had been sustained during the entire journey.

Mr. Murdock proved a transcontinental automobile tour to

be pleasurable possible and took a journey across the continent out of the category of abnormal stunts. He demonstrated that no path on this continent presents difficulties not surmountable by the pluck and patience of a tourist.

Mr. Murdock's passenger list was made up of Mrs. Murdock, their daughters Lillian and Alice, age sixteen and fourteen respectively, and their son, Jacob, Jr., a youngster of but eight years, and his mechanic, Philip de May. L. L. Whitman was a guest as far as Ogden, and P. W. Spaulding, a lawyer of Evanston, Wyo., from that point to the end of the journey.

Mr. Murdock himself, a man in the "forties," though looking to be far down in the "thirties," is a lumber merchant of the firm of J. M. Murdock & Bros., Johnstown, Pa. He spends his winters at Pasadena, Cal. He told his story most modestly at the Bellevue-Stratford on Monday night to a contingent of newspaper men M. J. Budlong, president of the Packard Motor Car Company of New York, had taken over to Philadelphia that afternoon in three cars to hear it. This trio of cars escorted Mr. Murdock to New York the following day.

How He Got Transcontinental Idea.

"I had occasion to make several trips between Johnstown and Pasadena this winter," said Mr. Murdock, by way of starting his story. "I spent many hours looking out of the car windows and dreaming dreams of making the journey home some day in my automobile. You see, I had been reading in the trade papers with great interest the tale of the Pekin-to-Paris run and the stories of the present New York-to-Paris race. When I reached Pasadena in February I had no idea of attempting the journey, and had even gone so far as to buy my railroad tickets home. I would keep asking myself: 'Is there a road across the United States?' My answer would always be 'yes.' Then I got to talking with L. L. Whitman, who lives in Pasadena, of how I could find it and of the possibilities of making the journey with my family. Finally I determined to make the attempt; at least, I resolved to go to that point when the discomforts should exceed the pleasures, and then to stop. That point, you see, was never reached.

"I made, two weeks before I started, a trip of 150 miles into the Mojave desert, the place I most, and almost only, feared. Then I came back and persuaded Mr. Whitman to accompany

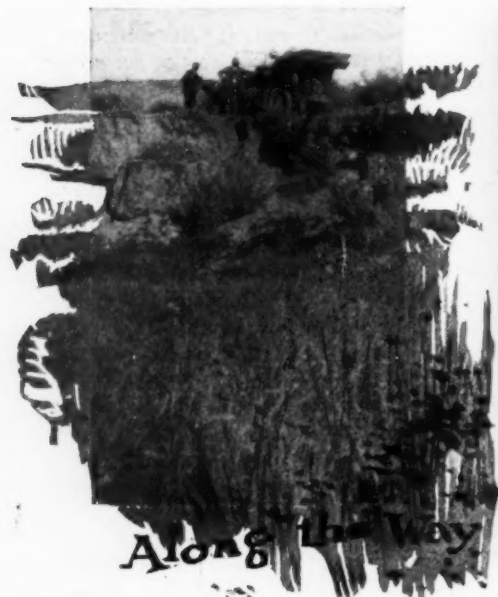
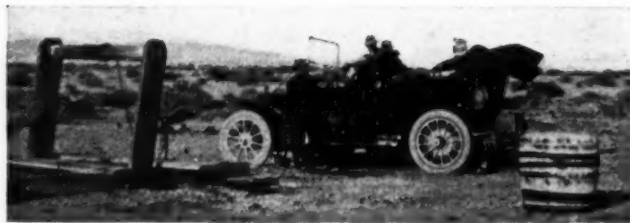
me as far as Ogden. I did not wish to lose my family in the desert. I knew I would feel safe in staying by them if he were along to go for help if needed.

"We started from Los Angeles at 8 o'clock in the morning on April 24. I had waited to join in the welcome to Admiral Evans' fleet. We carried five days' provisions for emergency in crossing the Nevada desert, and water, too. There are water stations every fifty miles. Some in the center is not fit to drink. The natives will tell you which are good and which bad. I met at their hands, by the way, the kindest treatment throughout my journey. There are practically no maps of the desert. The latest United States survey maps show a blank space in the Death Valley district. Many of the places marked were practically no settlements at all, or the mere tumbledown shacks of deserted mining camps.

Good Roads to Goldfield and Tonopah.

"We headed for Daggett, and then northeast, crossing Death Valley, and came to Beatty. Between this place and both Goldfield and Tonopah, there are two roads, one for automobiles and the other for wagons. Cars built for Eastern use are at a great disadvantage in this district. They have too low clearance for the rocks and deep ruts, nor are they wide enough to fit the ruts. These rocks and ruts gave us great trouble. They would catch the flywheel and we were in constant fear of ripping it off. I had to stop at least ten times a day to pry the pan away from the flywheel. This question of clearance was, in fact, the most difficult of our problems in this region.

"The country abounded in dry lakes, some five to seven miles across, with a spongy surface that took a bit of nerve to tackle.



Then there was a driftsand that filled the tracks like quicksilver. At times we would have to wrap the wheels with heavy rope and replace it every half hour. Though we carried 150 feet, it was exhausted at Goldfield.

"Leaving Tonopah, we set out northeast for Ely, a journey of 240 miles, these points being railroad connections, so we were reasonably near enough to a railroad for safety. The road was remarkably good, there being lots of long stretches admitting of 25 to 30 miles an hour going. Our only guides were rough pencil drawings and the United States maps. We steered by compass a lot. In fact, we reached Ogden, having strayed no further than five miles from the true course.

Road Was a Nightmare.

"The road from Ely to Cobre, Nev., has not a grade or a hill and few 'washes.' For 140 miles it is good for 75 miles an hour. We had planned to make the run from Cobre to Ogden, 150 miles, in one day. It took us two days of the hardest work. From

Cobre to Kelton it is a nightmare. You have to straddle ruts a man could almost stand in. It is 80 miles to Kelton and 70 miles to Ogden, the latter a veritable swamp with mud two feet and water four feet deep in places. We took to the railroad track and bumped the ties for five miles. Further along we encountered twenty-five to thirty hills that would stop the wheels and stall the motor. We would have to throw on power and then block the wheels behind and repeat the operation. On one occasion we were from 2 to 6 o'clock in thus climbing a 300-foot stretch.

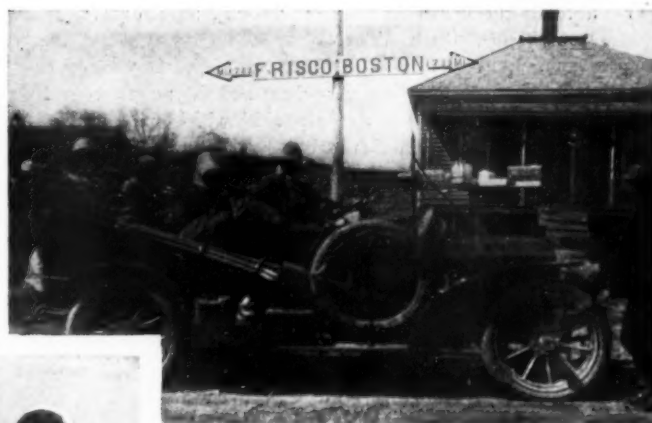
Advises Traveling Eastward.

"If you contemplate a transcontinental trip, by all means go West and come East, for the prevailing winds are from West to East, and they can keep or retard one a lot.

"I carried a speedometer, a glass front and a cape top. I only had to replace two springs. I did not reinforce anything before I started and did not even have the engine gone over. In addition to 22 gallons in the tank, I carried 5, 10 and 15-gallon cans of gasoline on the running board. My touring equipment embraced 250 feet of rope of assorted sizes, two shovels, pick, axe, sledge hammer and wrench. We used our cooking outfit quite often, as we slept not a little in unfinished shacks.

"We struck snow in Wyoming, being caught in quite a blizzard

Mr. Bennett, the Packard's Pittsburgh representative, left the Hotel Bellevue-Stratford Tuesday at 8:45 A.M., and started for New York from the Camden side at 9 o'clock. An easy run with stops at Trenton, New Brunswick and Newark brought the outfit to Weehawken ferry and landed it at the Packard Motor Car Company's garage, at Broadway and Sixty-first street, at 2:07 P.M. Mr. Murdock's odometer showed 3,693.3 miles at the finish. The excess over the aggregate of the daily runs taken from his notebook and herewith printed probably represents use of the car at his home at Johnstown and other places, as the route was not always strictly adhered to.



in the Laramie plain. We had little rain, most of it being ahead of us and leaving us its mud. We did not have to make a change in the carburetor for any elevation from sea level to 9,000 feet. The engine did not miss except during the snowstorm on the Laramie plain. The mud of Iowa was unspeakable, and, in fact, was the only serious obstacle east of Cheyenne.

"Before I had started, I had calculated on an average of 100 miles a day. Before I finished I found that steady going would give a much bigger mileage than this."

Mr. Murdock and his escorting caravan, which embraced another Packard, driven by his brother, W. F. Murdock, carrying

The Murdock Itinerary.

Date.	Terminus.	Miles.
April 24.....	Start Los Angeles.....	0
April 24.....	Garlick Lake, Cal.....	173
April 25.....	Resting Springs, Cal.....	67
April 26.....	Sunday.....	0
April 27.....	Goldfield, Nev.....	174
April 28.....	Stony Cabin, Nev.....	84
April 29.....	Ely, Nev.....	155
April 30.....	Montello, Nev.....	167
May 1.....	Kelton, Nev.....	84
May 2.....	Ogden, Utah.....	96
May 3.....	Sunday.....	0
May 4.....	Evanston, Wyo.....	85
May 5.....	Stopped by rain.....	0
May 6.....	Granger, Wyo., via Oakley.....	103
May 7.....	Wamsutter, Wyo.....	135
May 8.....	Rock River, Wyo.....	135
May 9.....	Cheyenne, Wyo.....	114
May 10.....	Sunday.....	0
May 11.....	North Platte, Neb.....	241
May 12.....	Columbus, Neb.....	235
May 13.....	Dennison, Ia.....	172
May 14.....	State Center, Ia.....	134
May 15.....	Clinton, Ia.....	191
May 16.....	Chicago, Ill.....	141
May 17.....	Sunday.....	0
May 18.....	Goshen, Ind.....	143
May 19.....	Toledo, O.....	150
May 20.....	Warren, O.....	190
May 21.....	Pulsbey, O.....	78
May 22.....	Johnstown, Pa.....	79
May 23.....	Rest.....	0
May 24.....	Sunday.....	0
May 25.....	Philadelphia.....	244
May 26.....	New York.....	104
Total		3,674

STEARNS FREE-FOR-ALL WINNER IN CINCINNATI HILL CLIMB

CINCINNATI, May 25.—The flight of John J. Ryan's Stearns up the half-mile hill on Stanley avenue in :31 4-5, in the free-for-all, brought to a close what would have been the best day's sport ever seen in this part of the country, had it not been unfortunately marred by an accident to Walter White.

Mr. White, whose driving feats have given him international fame, is now confined in a local hospital with a compound fracture of the right leg and sundry bruises.

The accident occurred in the free-for-all, and the crowd on the course is blamed for it. The White steamer was going nearly 60 miles an hour, and at this high rate of speed it was no easy task to swing out, but White did, and missed the people crowding the course, but he could not avoid a skid which caused the car to turn turtle, pinning him beneath it.

Before he could be picked up, John J. Ryan, in the Stearns, was given the word, and he came up the hill at railroad speed.

FREE-FOR-ALL—Open to All Classes.

- | | | |
|-----------------------|----------------------|----------|
| 1. Stearns..... | John J. Ryan..... | 0:31 4-5 |
| 2. White..... | W. C. White..... | 0:32 3-5 |
| 3. Pope-Hartford..... | A. Hickenlooper..... | 0:52 4-5 |

CLASS D—Cars Costing \$3,501 and Above.

- | | | |
|------------------------|-------------------------------|----------|
| 1. Stevens-Duryea..... | P. G. Thompson, Jr..... | 0:43 |
| 2. Stearns..... | A. V. and F. G. Stegeman..... | 0:46 3-5 |
| 3. Stearns..... | John J. Ryan..... | 0:54 1-5 |
- (Special time by Ryan, 0:36 3-5.)

CLASS C—Cars Costing \$2,001 to \$3,500.

- | | | |
|------------------------|-------------------------|----------|
| 1. Thomas-Detroit..... | J. H. Ratliff..... | 0:46 2-5 |
| 2. Knox..... | Queen City Auto Co..... | 0:47 2-5 |
| 3. American..... | Jungclas Auto Co..... | 0:50 2-5 |

CLASS B—Cars Costing \$1,000 to \$2,000.

- | | | |
|------------------|------------------------------|----------|
| 1. Jackson..... | C. D. Paxson..... | 0:57 1-5 |
| 2. Overland..... | Suburban Auto Garage Co..... | 0:58 4-5 |
| 3. Klink..... | Charles F. Schuberth..... | 1:13 1-5 |

He saw the crowd in time, though, and managed to swing by without damage. Following this, though, the chief of police declared he would not be responsible for the safety of the crowd, whereupon the club officials decided to call off the climb. The honors in this interrupted free-for-all went to Ryan, whose Stearns beat the White by 4-5 second. In fact, Ryan really was the star of the climb, and had it not been for a mishap in Class D he would have taken three firsts. In that event he discovered, when half way up the hill, that someone had turned off his gasoline, and he had to be content with third. The officials granted him permission to make a time trial, which he did in :36 3-5.

An added event was a class for electrics, and two Babcocks put up a most creditable exhibition, making the hill a full minute faster than the next best performer, doing much to remove the belief that Cincinnati is not for electrics. Summaries follow:

CLASS A—Cars Costing \$1,000 or Under.

- | | | |
|-----------------|------------------------|----------|
| 1. Ford..... | Auto Motor Car Co..... | 1:07 |
| 2. Reo..... | Logan A. Thompson..... | 1:22 1-5 |
| 3. Jackson..... | C. D. Paxson..... | 1:22 4-5 |

SPECIAL RACE—FOR WOMEN.

- | | | |
|-------------------------|---------------------------|----------|
| 1. Thomas..... | Miss Bessie Burkhold..... | 0:45 4-5 |
| 2. Packard..... | Mrs. Charles Bultman..... | 0:47 2-5 |
| 3. Stoddard-Dayton..... | Mrs. D. P. Roberts..... | 0:58 4-5 |
| 4. Pope-Toledo..... | Miss H. McD. Stallo..... | 1:01 |

SPECIAL RACE—FOR CLUB MEMBERS.

- | | | |
|------------------------|---------------------|----------|
| 1. Stearns..... | John J. Ryan..... | 0:34 1-5 |
| 2. Stevens-Duryea..... | E. A. Conkling..... | 0:47 1-5 |
| 3. Thomas-Detroit..... | G. H. Ratliff..... | 0:47 1-5 |

SPECIAL RACE—FOR ELECTRICS.

- | | | |
|-----------------------------------|------------------|----------|
| 1. Babcock Electric runabout..... | 1:34 1-5 | |
| 2. Detroit..... | R. S. Payne..... | 2:24 3-5 |

OFFICIAL REPORT OF HARTFORD CLUB'S RELIABILITY RUN

HARTFORD, CONN., May 23.—The official report of H. P. Maxim, referee of the recent reliability and fuel contest of the Automobile Club of Hartford, has been sent to the secretary of the technical board of the American Automobile Association, in which the results of the protests filed are announced. Two protests were received by Referee Maxim.

One was from the Capitol City Auto and Hack Company, entrant of the Mitchell, which objected to the manner in which the gasoline tank of the Mitchell was filled. Referee Maxim explains this by stating that when the tank was filled at the noon control the driver of the Mitchell stated it would take five gallons, so a can of that capacity was used. The tank would not hold the full amount and some of the fuel overflowed, whereupon Henry Souther, who was officiating, estimated the waste at 1 pint, making due allowance on the ticket. This second filling made the Mitchell's total 9 gallons 3 quarts, whereas the

Ford, which was given the decision in this class, used 9 gallons 2 quarts 1 pint. Referee Maxim states that "the decision was based on Mr. Souther's record and judgment, backed up by the judgment as to the amount spilled by a member of the committee present experienced in such matters.

The Mitchell people also protested the Ford because the entry fee was not paid until after one lap of the contest had been completed, whereas the rules called for the fee accompanying the entry. This was dismissed by the referee when it was learned that the Ford entry had been accepted on the promise of the entrant to forward the fee within a few days, his credit being considered good by the committee. The fact that the Ford was allowed to start is blamed upon the committee rather than the entrant. The referee quotes a precedent for making this ruling.

Referee Maxim's report on the condition of the cars and the reasons for the penalization was as follows:

- No. 1 Franklin—Changing tire at Hartford control.
- No. 2 Corbin—Carburetor and engine trouble.
- No. 3 Corbin—No penalty; perfect score.
- No. 4 Ford—Stalled motor.
- No. 5 Stevens-Duryea—No penalty; perfect score.
- No. 6 Reo—Babbitt burned out; broken connecting rod.
- No. 7 Stoddard-Dayton—Stalled engine; commutator trouble; tire trouble.
- No. 8 Rambler—No penalty; perfect score.
- No. 9 Ford—Did not start.
- No. 10 Rambler—Car backed down hill changing gears.
- No. 11 Rambler—No penalty; perfect score.
- No. 12 Knox—Stalled motor; tire troubles.
- No. 13 Buick—Engine trouble; faulty spark plug.
- No. 14 Compound—Gearshaft bent.
- No. 15 Stoddard-Dayton—No penalty; perfect score.
- No. 16 Thomas Flyer—Motor stalled.
- No. 17 Overland—Engine, radiator and tire troubles.
- No. 18 Thomas Flyer—Stalled engine; carburetor trouble.
- No. 19 Stevens-Duryea—No penalty; perfect score.
- No. 20 White—Disqualified; ahead of schedule time.
- No. 21 Ford—No penalty; perfect score.
- No. 22 Mitchell—No penalty; perfect score.
- No. 23 Rambler—Tire trouble.
- No. 24 White—Stopped to take on water.
- No. 25 Pope-Hartford—Engine and tire troubles.

- No. 26 Cadillac—Engine and tire troubles.
- No. 27 Peerless—Engine and tire troubles.
- No. 28 Oldsmobile—Tire trouble.
- No. 29 Pope-Hartford—Stalled motor.
- No. 30 Ford—Did not start.
- No. 31 Corbin—Withdrawn.
- No. 32 Knox—Motor stalled; adjusted spark plug.
- No. 33 Corbin—No penalty; perfect score.
- No. 34 Columbia—Ignition trouble.
- No. 35 Thomas-Detroit—No penalty; perfect score.
- No. 36 Packard—No penalty; perfect score.
- No. 37 Cadillac—Ignition trouble.
- No. 38 Pierce-Arrow—No penalty; perfect score.
- No. 39 Maxwell—No penalty; perfect score.
- No. 40 Thomas Flyer—No penalty; perfect score.
- No. 41 Atlas—Tire trouble.
- No. 42 Knox—No penalty; perfect score.
- No. 43 Columbia—Leaking radiator connection.
- No. 44 Mitchell—Carburetor trouble.
- No. 45 Stoddard-Dayton—Did not start.
- No. 46 Maxwell—No penalty; perfect score.
- No. 47 Maxwell—No penalty; perfect score.
- No. 48 Locomobile—Tire trouble.
- No. 49 Buick—No penalty; perfect score.
- No. 50 Oldsmobile—Tire trouble.

Total. Perfect Scores, 18.



Along the Exhilarating Seacoast of Massachusetts—Near Revere Beach, Not Many Miles from Boston.

MORE beautiful, more enchanting, more exhilarating; beautiful because of its unsurpassed scenery, enchanting because of its mountains, rivers and plains, and exhilarating on account of its perfect clear air and hemlock and pine essence—this, in brief, is what will make the 1908 A. A. A. tour more popular than its predecessors. Scenic, as all Glidden tours of the past may have been, they will fade into oblivion when compared with the approaching reliability contest for the Glidden and Hower trophies, as laid out by the Premier pathfinder, in charge of Secretary Dai H. Lewis of the A. A. A. touring board.

Tourists could not ask for a better route. Even the chronic faultfinder can find little, if anything, to grumble about with this year's excellent route. The entrants will find mile after mile of beautiful macadam roads, naturally intercepted at intervals with some bad spots, but, taken all in all, the route is over some of the very best roads in the country.

Among the mountain ranges to be traversed are the Alleghanies, the Catskills, the Berkshires, the White mountains of New Hampshire, and the picturesque Green mountains of Vermont. Such rivers as the Susquehanna, Delaware, Androscoggin, Kennebec, White river, and numerous smaller streams will

be often crossed and followed during the tour. The route is:

First day—Buffalo to Cambridge Springs.....	117.4 miles
Second day—Cambridge Springs to Pittsburg.....	110.2 miles
Third day—Pittsburg to Bedford Springs.....	106.4 miles
Fourth day—Bedford Springs to Harrisburg.....	107.3 miles
Fifth day—Harrisburg to Philadelphia.....	133.5 miles
Sixth day—Philadelphia to Milford.....	132 miles
Seventh day—Milford to Albany.....	158.5 miles
Eighth day—Albany to Boston.....	194.2 miles
Ninth day—Boston to Poland Springs.....	154 miles
Tenth day—Poland Springs to Rangeley.....	141.7 miles
Eleventh day—Rangeley to Bethlehem.....	130 miles
Twelfth day—Bethlehem to Saratoga.....	184.5 miles

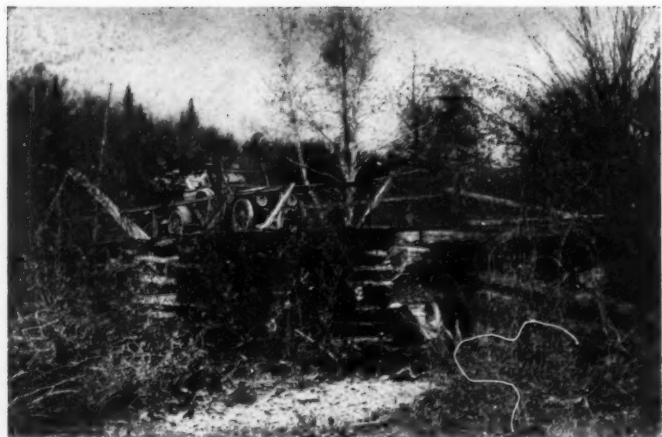
The total mileage for the tour is 1,669.7 miles. The odometer on the Premier pathfinder registered exactly 1,992 miles.

Previous stories have told of the tour starting from Buffalo, July 9, and taking in the oil, coal, coke, and steel regions of Pennsylvania; the run through the Delaware Water Gap; from Albany to Boston through the Berkshires and over the excellent State highways of Massachusetts to Boston.

While the run through the Delaware Water Gap and over the Alleghanies is through decidedly picturesque country, there



View from Poland Springs, Me., Where the Tourists Most Comfortably Will Spend One of Their Sundays.



Typical of the Road to Rangeley Lakes.

is no question but that the route from Boston to Saratoga, via New Hampshire, Maine and Vermont, will eclipse that of any other section of the tour.

From Boston to Poland Springs it will be by way of Cambridge, past Harvard University, through Somerville to the Middlesex Fells parkway, to the Revere Beach parkway and a two-mile ride along the beach and past the amusement places. This day's run brings the tourists for the first time to the shores of the Atlantic.

From Revere Beach the route leads to Lynn, to the Swampscott boulevard along Swampscott beach to Salem, known as the "Witch City." From here the tourists will pass through Newburyport, Portsmouth, N. H., where a turn seaward is again made to Rye Beach and past Boar's Head. The view of the ocean from this point is excellent.

Maine is entered at Kittery, and at York the Portland post road is traversed, and from there the route is then through a few small lumber camps, while the roadway is strewn with the famous pines, hemlocks, and fir trees of Maine. In the vicinity of Kennebunk there are several stretches of sandy roads. The roads from Boston to Portland are excellent for touring, and no hill was encountered which is larger than a knoll. From Portland the route leads finally to the Summit House, Poland Springs, where Sunday of July 19 will be spent.

From here the Presidential range of the White Mountains can be seen, ninety miles away. Mt. Washington, the highest peak east of the Mississippi, can plainly be seen towering nearly 6,000 feet heavenward. The scenery is magnificent, and in all directions towering mountains are to be observed for miles. It is an ideal spot for a stopover.

The day's run from Poland to Rangeley will be not only beautiful, but one of the hardest during the entire route. The



Logging Settlements Abound in Maine.

route leads through Auburn across the Androscoggin river into Lewiston. To the left of the tourists while crossing the bridge into Lewiston, are the fascinating falls of this river. The run through Augusta, Waterville, and up to Farmington is without particular interest, except for the Kennebec river, which is followed from Augusta to Waterville, and the unusually fine country roads.

Up to Farmington there are very few hills. The route chosen this year from Waterville to Rangeley is not through Skowhegan and the Dead River district, as was the case two years ago. After leaving Farmington, the roads are in excellent condition, with many level stretches up to Strong, twenty miles from Rangeley. From Strong to Rangeley very narrow and rocky roads predominate. The route lies along Sandy Creek. There are many water-breakers, and the Premier pathfinder struck many soft places with practically no bottom. A mile and a half from Rangeley the Premier struck one of these soft spots and sank to the radiator. On one side both hubs and the running board were completely buried in the mud.



Just a Touch of the Maine Atmosphere.

For three hours the car was in this quagmire, which was one of the worst of the entire pathfinding trip. It was slow shoveling, as the soft clay flowed back as fast as it was thrown out. After four hours of digging, filling in with rocks, laying planks and making detours into the field, the Premier reached the hotel with hardly a spoke in sight, so completely were the wheels choked with mud. But it was with some satisfaction that we learned the car was the first to Rangeley this Spring. It will be mid-Summer when the tourists will cover this stretch, and the roads will be seasoned.

A few miles north of Farmington one begins to get right next to nature. The narrow roadway leads into the dense main forest, where Nature is found in all her solitude. It is certainly the forest primeval, and the murmuring pines and hemlocks seemed to wave a welcome to the pathfinders. Great fallen "monarchs of the forest" were stretched on all sides, in many cases forming natural bridges across the streams. Several recently deserted logging camps are near the roadway. None but those who have visited the Rangeley Lakes and who have been through the dense Maine forests can appreciate that glori-



Rangeley Lakes, a Most Beautiful and Picturesque Mecca for Sportsmen and Vacation Seekers.

ous country and the "happy hunting ground" of all sportsmen. The air is permeated with the essence of fir, balsam, and hemlock. One can imagine how the Indian savage in the days of yore tramped through these forests hunting deer and bison, and skimmed over the forty miles of lakes in his birch bark canoe. For rest of body and contentment of mind, there is no more ideal spot.

While laying over a day at Rangeley waiting for the roads to dry, the pathfinders, armed with fishing tackle, made an attack upon the lake. Ray McNamara, the driver of the Premier, had not been there an hour before he pulled out a four-pound salmon. Secretary Lewis caught a trout about four inches long, and of course threw it back.

From Rangeley to Bethlehem, the following is the route: Madrid, Weld, Dicksville, Rumford Falls, Shelbourne, Gorham, circle Cherry Mountain, and Carroll. The beauty of the White

mountains, especially the Presidential range, is well known to Gliddenites. Among the many wonderlands of this vast continent none possess the variety of attractions of the White mountains. The Alps themselves afford no greater marvels of natural phenomena in the way of scenery, climate, and exhilarating environment than does this famous region.

The last day of the tour, a distance of 184.5 miles, between Bethlehem and Saratoga Springs, will not only be one of the hardest but the most beautiful. The route is through the magnificent Green mountains of Vermont, and includes Littleton, Lisbon, Newbury, Bradford, Hanover, past Dartmouth College, White River Junction, Woodstock, Bridgewater, Rutland, Castleton, Fair Haven, Whitehall, Glens Falls, to Saratoga.

The roads are in excellent shape until reaching the Green Mountain Notch where a climb of three and one-half miles will be made, reaching an altitude of 4,600 feet. This is a very



Vermont Offers Much in the Way of Green Clad Hills and the Captivating Connecticut Valley.

mountainous, narrow, and rocky road. During the day's run the Connecticut river was crossed at Wells river, Vermont, and the contestants will pass through the Connecticut valley and the White river valley. White river is followed and crossed many times from White River Junction.

To attempt faithfully to portray the beauties of Vermont scenery by means of printer's ink is no easy task. It is by far the most glorious country through which the contestants will pass. It is territory through which the Glidden tour has never been run. Even the camera's vision, while it may reproduce in piecemeal suggestions of sublime symmetry and enchanting vistas, cannot reveal the wider scope and prospect of unfolding beauties that greet the admiring eye on every side. The scenery of Vermont is not of magnificent, awe-inspiring grandeur, such as is characteristic of regions in this country where the Titanic upheavals of ages gone have reared colossal snow-crowned domes and gigantic gorges. Nature was in her gentler mood when she fashioned her handiwork in the Green mountains. The scenery is of the restful, pastoral kind, an undulating country of wonderfully verdant fields and hillsides, dimpled with tiny ponds and lakes and babbling brooks.

While the Premier pathfinder was greeted with enthusiasm during the entire trip, the welcome which it received through



Mount Washington Looms Up Through the Clouds.

the White mountains district clearly showed that the farmers of New Hampshire welcomed the coming of the Glidden tourists. In this section people rushed to the front of their stores and houses, the men sending up a cheer and the women and girls waved their handkerchiefs. Many times the question was hurled after the pathfinders: "Is the Glidden tour coming this way?" Team drivers graciously turned to the side of the road and gave the car plenty of room, while in some other sections of the trip we found many "road hogs."

It would be doing an injustice to the Premier pathfinder, if at this time a tribute was not paid to the magnificent work which the car did on the trip. None but the pathfinders can appreciate what a terrible twenty-four day siege of spring mud-plugging and mountain-climbing this car went through. No car in America was ever given a harder test and when the route was completed at Saratoga, the powerful six-cylinder machine was running as smoothly as when it left Buffalo. We were particularly fortunate in having no punctures or blowouts during the entire trip—the tires used were Goodrich. No replacement was made on the Premier pathfinder, so that the run was as peaceful and uneventful from the mechanical point of view, as it was enchanting from the scenic.



At Hanover, N. H., Dartmouth College Is Located.

DEMONSTRATIONS AT A. A. A. CONVENTION.

BUFFALO, May 25.—Work is rapidly being pushed for the completion of the preparations to receive the visiting delegates to the Good Roads and Legislative convention of the American Automobile Association, to be held here July 7 and 8. The Committee on Practical Demonstrations, of which George C. Diehl, county engineer of Erie County, is chairman, has invited manufacturers of road machinery and makers of preparations for dust laying and road binding, to be represented at the Buffalo convention. About four miles of improved road will be set aside for the use of manufacturers of dust preventives, each being given a short strip, properly placarded, and the different applications will be subjected to heavy wear, the results being publicly announced later. Lateral roads in the same neighborhood will be turned over to the makers of road building machinery in order that they may demonstrate their apparatus thereon.

From the number of inquiries that are being received daily at the office of the Touring Board of the three A's in this city, it is evident that Buffalo will prove a Mecca for a very large number of runs and tours which are now being planned to bring their participants here in time to take part in the convention. These inquiries ask for routes, garage and hotel accommodations and similar information and come from various parts of the country within a radius of several hundred miles. President Strong, of the Rochester Automobile Association, has informed President Hower of the Automobile Club of Buffalo, that the Rochester club has organized a run to the convention in which about 200 will participate, quarters having been engaged at the Lafayette.

On the nomination of President Hower, President Hotchkiss of the A. A. A. has appointed a number of committees to assist the national officers in receiving and entertaining the delegates and visiting autoists. These committees and their chairmen are: Finance, H. A. Meldrum; reception, A. H. Knoll; entertainment, John L. Clawson; practical demonstrations, George C. Diehl. The committees in each case are composed of a large number of prominent autoists of this city, most of whom are members of the Automobile Club of Buffalo.



And, Finally, the Pathfinder Reaches Saratoga.

AUTOMOBILE CLUTCHES AND THEIR DESIGN*

By HENRY SOUTHER, MEMBER A. S. M. E. AND S. A. E.

THE single disc clutch is widely used, here and abroad. It is so characteristic of a French make as to travel under the name of the firm—the De Dion. It is now used in this country by one firm for horsepowers ranging from 70 to 20, for pleasure and for commercial service. The clutch has a disc *A*, Fig. 35, on the driven member, *B*, which is clamped between two discs, *C*,

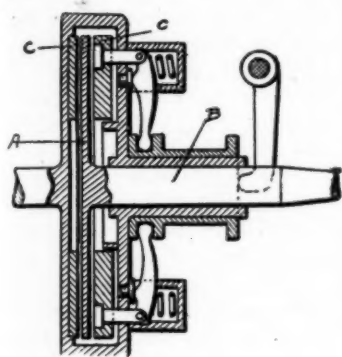


Fig. 35—A single disc type.

on the driving member or flywheel. In Fig. 35 this arrangement is clearly shown. There are the necessary accompaniments of separating springs, so as to make disengagement perfect, also either single or multiple springs to cause the proper engagement.

Fig. 36 shows the same kind of a clutch in a slightly different form. The springs in this case are on the front side of the flywheel rather than on the rear, as in Fig. 35. Cork inserts are being

used in this clutch to considerable advantage. Another form is the now popular multi-disc clutch; that is, the elaboration of the Weston clutch, to which I have already referred. This clutch is indicated clearly by Fig. 37, the alternate plates of bronze and steel attached to driving and driven parts being pressed together by a powerful spring, *5*. The question of lubrication here is the all-controlling one, and, in fact, it would seem that the principal problem in connection with the multi-disc clutch as a type is the proper lubrication of it.

I have ridden in cars equipped with such clutches that were extremely savage in taking hold. I have ridden in others of the same make that were extremely slow to take hold. In a way, this may be a good thing. For example, a person going into a hill-climbing contest or race and wishing to pick up quickly would be perfectly willing to put up with a harsh clutch and lubricate accordingly. On the other hand, a car running about a level city, encountering few bad hills, would be able to lubri-

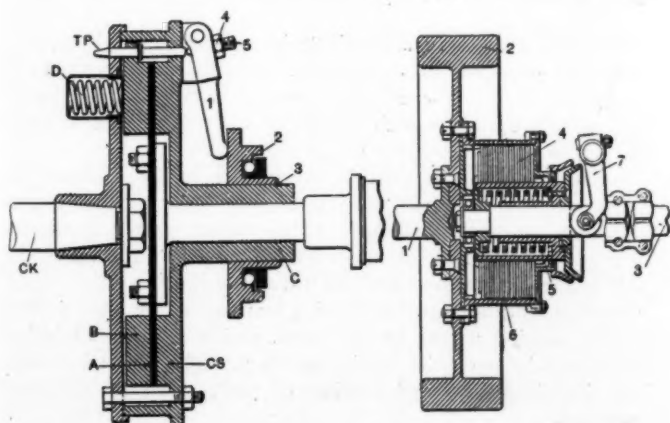


Fig. 36—Modified disc design.

Fig. 37—Form of multiple disc.

cate excessively and still have a satisfactorily driven automobile. A clutch so lubricated would be extremely soft, and yet pick the car up fast enough for ordinary purposes on level roads.

Cold and heat affect the operation of this clutch, the lubricant

in summer being thicker than can be permitted in winter. As it runs in oil it takes a certain length of time for the oil to squeeze out when engaged and for the metal to come in contact with metal and really begin to drive the car. It will be seen from this that the viscosity of the lubricant is of prime importance. One form of multiple disc clutch in use in a very high grade car consists of steel discs rubbing against a special bronze rolled into sheets. The steel discs are provided with several small tongues on the outer periphery, bent one side sufficiently to come in contact with the next steel disc, for the purpose of separating the discs and overcoming the drag when the clutch is disengaged. A small clutch brake is also provided to overcome clutch inertia or drag inherent in the clutch and due to viscosity of lubricant. The steel discs are put into the clutch as received from the rolling mill, with the hard black finish characteristic of carefully finished crucible sheet steel.

This clutch is connected with the crankcase so that oil feeds into it from the crankcase through a hole drilled in the center of the crankshaft. Entire reliance, however, is not placed on this supply, a little extra oil being supplied every two or three days through holes provided for that purpose. Fig. 38 shows a nest of discs such as used in a well-known multi-disc clutch. The U-shaped separating springs are plainly visible. These force like discs apart when the spring pressure is released, overcoming the natural tendency of the oil to cause them to adhere. Some disc clutches are forced apart in a similar manner by little spring shaped strips struck up from the discs themselves. Another form of this same type of clutch is shown in Fig. 39. Comparatively few discs are used as will be noted. On the other hand, it is apparent that the spring pressure is very heavy. This is a successful and well behaving clutch used on a popular car at the present time. It drags but little when the gears are changed and is satisfactory in that respect.

A type of disc clutch consisting of all steel discs with alternate ones faced with leather was operated without any oil whatsoever, the leather being softened and made more or less pliable like the leather on the simple cone clutch. These clutches gave some trouble by burning up, the slip required to start smoothly being also sufficient to create enough heat to destroy the leather. This clutch was, however, extremely efficient in the transmission of power. For example, the one shown in Fig. 41, the discs of which are about 7 inches in diameter, was powerful enough to drive an automobile of 50 horsepower.

It must be remembered that the automobile engine runs at high speed, say, 1,000 to 1,200 r.p.m. when developing anywhere near its normal rating. Some motors, in fact, running up as high as 1,500 to 1,800 r.p.m. (standard rating is at 1,000 feet per minute piston speed). It is a fact that in service cars with disc clutches of this character vary more or less in the way their clutches behave. Clutches receive very much less attention than they ought, like everything else on the automobile. I think it will be admitted, even by the adherents of this form of clutch, that it ought to receive more attention than the leather-faced

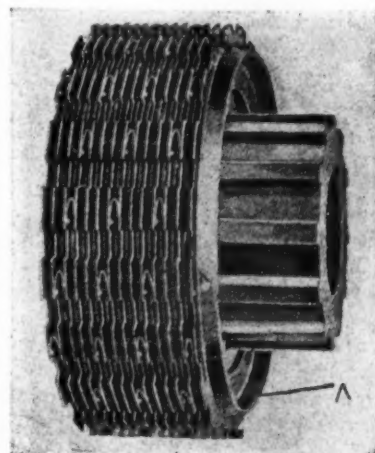


Fig. 38—Assembly of discs.

*Paper read before the American Society of Mechanical Engineers at New York, May 12. Discussion to be continued at Detroit, June 25-28, in conjunction with the Society of Automobile Engineers. Continued from page 707, "The Automobile," May 21.

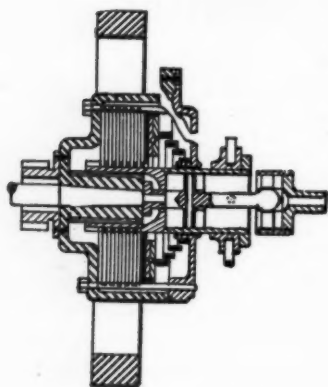


Fig. 39.

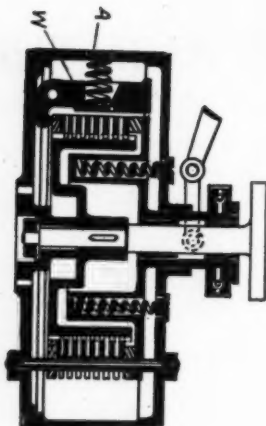


Fig. 40.

Modifications of Multiple Disc Types.

cone. Nevertheless, this is now a very successful type of clutch, largely used in many high-grade cars.

In the matter of the number of plates in the disc clutch there is no agreement between designers. Some use a very large number of thin plates, as many as 50 or 60, and others use a very small number, as few as six or eight; in fact, it may be said that the single disc clutch, which has only two frictional surfaces, is the lower limit. One very ingenious application of the multiple-disc clutch has been made by a manufacturing concern in the East (Sturtevant Mill Company, Boston) in the fact that the pressure on the discs is brought about by centrifugal force acting on weights so arranged as to press the tighter with increased velocity. This is shown by Fig. 40. One of the weights is at *W*. It will be noticed that this weight operates against a spring, *A*, which prevents it flying out and gripping at too low an engine speed. Once, however, this spring pressure is overcome, the discs indicated by the alternately light and dark spaces are pressed together. It would seem that this principle has one serious defect in the fact that at low engine speeds the gripping tendency would be small. It would, therefore, not be possible to develop high torque at low speeds, which is sometimes quite desirable. It is a fact, however, that it is almost impossible to stall an engine by applying this clutch too quickly, as it does its own releasing so promptly and automatically. It is almost human in this respect.

This principle has been elaborated in connection with an automatic change of gears: gear No. 1 being picked up at a given rate of revolutions by its set of disc clutches; gear No. 2 by an increased number of revolutions by a separate set of discs, and so on. In driving a car so equipped the changes take place without being perceptible except with the closest observation. This system is open to the objection, however, of not being able

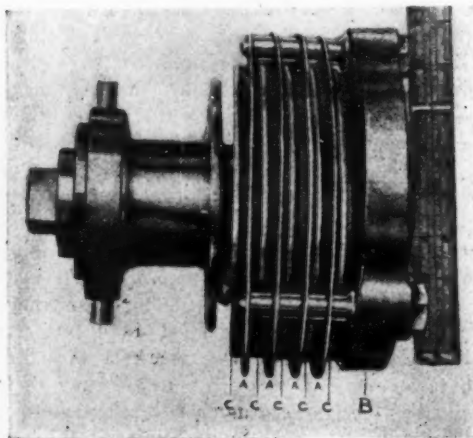


Fig. 41—Showing small dimensions of the average multi-disc type of clutch.

to spin the engine up very rapidly and connect with the low gear, in order to jump the car out of a hole or some unusual situation. I understand this has been overcome by supplying an independently operated lever for the foot to be used in emergencies only.

With the automatic Sturtevant multi-disc clutch it has been found experimentally that, for the maximum slip speed usual in automobiles, 15 to 20 pounds per square inch pressure is safe, and the lubricated cast iron discs scarcely wear out the tool marks after many thousands of miles use. They further state that experience has shown them that safe slip is merely a matter of good lubrication and low pressures. They have experimented with small cast iron discs, running dry and with constant slip at two pounds per square inch pressure, and even at that they wore many weeks transmitting a heavy load.

A modification of the multi-disc clutch in which the cone and the disc are combined is attracting much attention. This clutch (Hele-Shaw) is fully described by its inventor in the Transactions of the Institute of Mechanical Engineers (Great Britain), July, 1903. Fig. 38 shows a set, or "pack," of discs from such a clutch. Careful scrutiny reveals a V-shaped circular impression struck up in the end disc. Fig. 42 also shows the V shape of the discs very well indeed; in fact, the whole clutch is well shown here in section. I call attention to the female cone, *D*, bearing on the male cone, *f*, when the clutch is thrown out, thereby checking the spinning tendency of this clutch, or, if the viscosity of the oil is heavy, holding it quiet during the changing of gears.

In place of the entire surface of the discs bearing, only the V portions engage. This clutch is copiously lubricated, and the V, or engaging portions of the discs, are perforated with holes

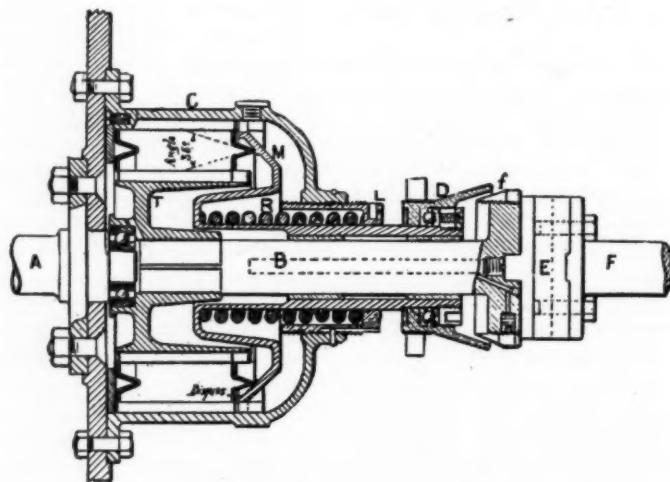


Fig. 42—Combined cone and multiple disc idea in Hele-Shaw clutch.

so that the oil may circulate quickly in and out of the V grooves as they are engaged and disengaged. Outside the V portions of these plates or discs there is a comparatively large space between them, permitting the free circulation of oil and consequent rapid carrying away of heat if the clutch slips much.

In connection with the article referred to in the Transactions of the Institute of Mechanical Engineers there are some very good data on power transmitted by various spring pressures, given in Fig. 43. Fig. 44 shows the character of the curve depending upon horsepower and pressure of springs.

One thousand horsepower is being transmitted by one of these clutches running at 700 or 800 r.p.m. and measuring 18 inches in diameter between the Vs in the discs. The following table gives the dimensions and number of plates used for different horsepowers:

	Bronze	Steel
25 h.p., 27 plates of 6 1-2 in.....	14 outer	13 inner
40 h.p., 25 plates of 8 1-2 in.....	13 outer	12 inner
60 h.p., 21 plates of 11 in.....	11 outer	10 inner

The space in length required inside of the clutch casing for 25 plates is 5 in., this including the space for the disengaging movement and the spring pressure plate.

The number of plates in this clutch is made to vary with the power transmitted, the diameters remaining the same within certain limits. The principle involved is that the thickness of the pack of plates shall not exceed the diameter of the plate. When

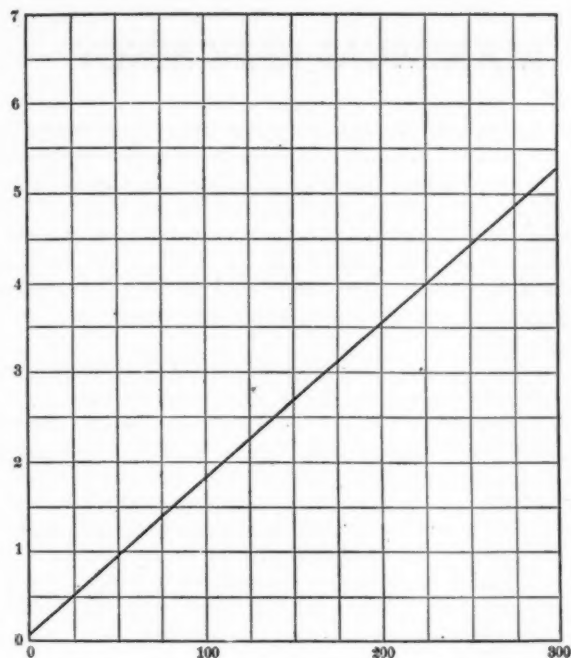


Fig. 43—Power chart for the Hele-Shaw multiple disc clutch. Figures at the right = horsepower; those underneath, pressure.

this becomes necessary in order to transmit a load, the plates are increased in diameter, fewer of them being used. The clutch is necessarily heavy, but this is partially offset by the relatively small diameter. It has, consequently, little spinning tendency. The materials for disc clutches in general have been various; namely, steel on steel, steel on leather-faced discs, steel on bronze and steel discs with cork inserts. I have recently been informed of a disc clutch with cork inserts of natural cork that wore out in about 1,000 miles twice in succession. This same clutch was equipped with compressed cork inserts previously described, which have driven the car some 5,000 or 6,000 miles without perceptible wear.

It is a fact that steel discs against steel have become badly heated and cut to such an extent as to make the clutches inoperative.

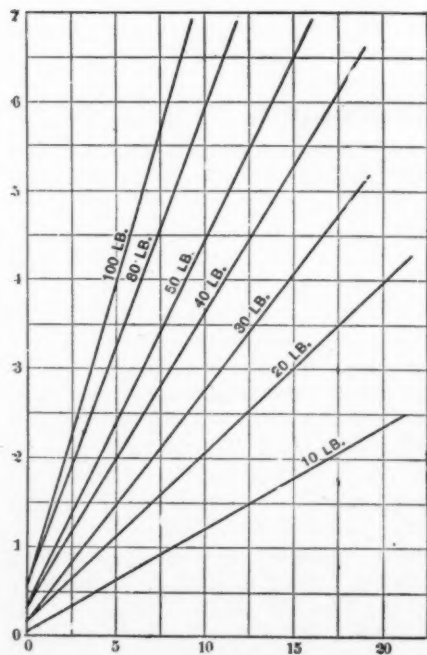


Fig. 44—Chart of spring pressures. Figures at right = horsepower; those underneath = number of plates.

Steel against bronze, however, does not seem to cut in this manner and the wear after two years' steady use is only 0.002 inch or 0.003 inch at the outside edge of the discs. I have not heard of the original combination of Weston, that is wood against iron or steel, being used in connection with automobiles. The cone clutch stands alone in the great care necessary to so construct it as to permit it to seat itself absolutely concentrically. All the other types of clutches are for the most part free from this difficulty. But

it will be seen from the foregoing that the simplicity of the cone offsets the extra care necessary in its installation.

It may seem from what I have said in regard to clutches in general that it is about the worst part of an automobile that can be mentioned, but I hasten to correct this impression if it exists. As a matter of fact, I find reference to the behavior of the clutches in the last Glidden tour, a tremendously severe test of some 1,500 miles. An observer states that the clutches came out of this test quite as well as many parts of the running gear. My own experience is that it is a mighty poor automobile clutch that cannot be neglected and cannot run without any attention whatsoever for 1,000 miles.

A pneumatic clutch has been developed which has not been widely used because of its cost. It is a plain leather-faced disc pressing a metal plate as indicated in Fig. 45. The clutch is located within the flywheel and the air is forced from the pump through a small air cushioning tank and from there it enters the clutch through the hollow crankshaft *B* and an air valve. The air deflects the leather diaphragm *C*, causing it to bear against the metal disc *D*, which can have a slight endwise motion, and forces it against the fiber disc *E* permanently riveted to the casing *F*, which latter is bolted to the flywheel.

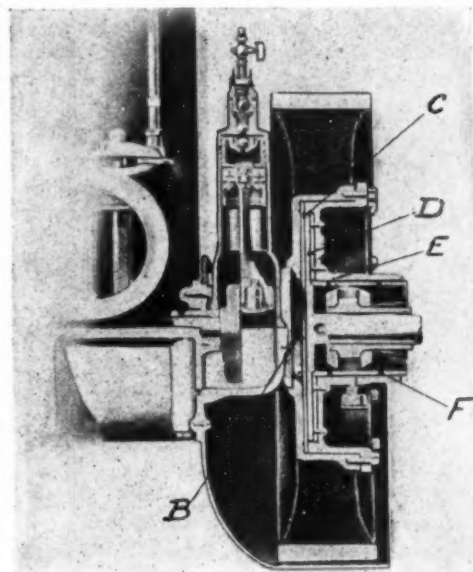


Fig. 45—The Northern pneumatic clutch.

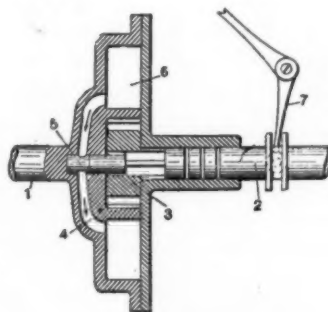


Fig. 46.

Simple Form of Hydraulic Clutch.

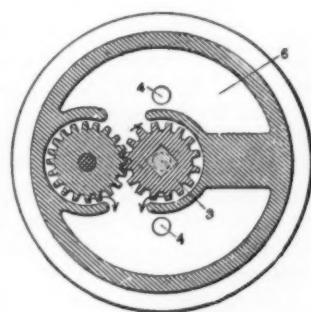


Fig. 47.

Hydraulic clutches have been used but are not popular. Figs. 46 and 47 show one of the simpler forms that has appeared. The magnetic clutch is in use and is fairly successful. Such clutches are operated on the same principle as the so-called "pick up magnet" found in so many plants. One complication arises in the fact that one of the parts of the magnet has to rotate continuously, the gears being always in mesh; consequently the exciting current has to be carried to it by a brush. A considerable current is also necessary on the car for the operation of the clutch. As I have already stated, there is a great variation of detail in friction clutches. This paper cannot cover it all, but will, I trust, be of enough interest to lead to discussion, which will do more to fully develop the state of the art than has been possible in this summary which I have prepared.

TO CHECK VALVE-TIMING FOR MAXIMUM EFFICIENCY

AN apparatus known as the Larrad, has been produced with the object of regulating the timing of a motor in order to produce the maximum of power. It consists, writes Louis Lacoïn in *Omnia*, of a metallic plate *A* mounted on a shaft *E*, to which is attached the blade *D* and a spirit level *B*. The metallic plate is pierced with three series of holes, and in the

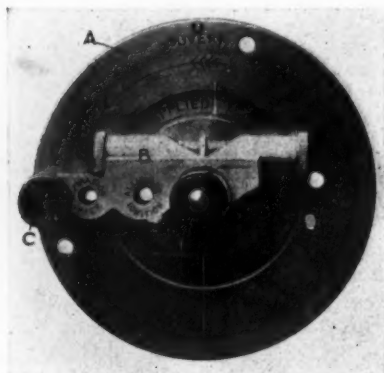


Fig. 1—Larrad apparatus for regulating the timing of motors. A, disc pierced with a series of holes; B, spirit level, in the base of which is a hole for each of the preceding series; C, pin to secure holes in different positions. Arrow indicates direction of rotation.

base of the spirit level are three holes to correspond with each of the three series on the plate. Finally the milled nut *C* allows the holes in the two pieces to be brought into correspondence.

To use the apparatus, the blade *D* must be fixed to the crankshaft of the motor or any other part turning with it. Its construction allows of a variety of methods of mounting; thus, it may be slightly bent and wedged in between the cone and the flywheel. The only essential conditions are that the shaft *E* should be parallel with

the crankshaft, and that when the motor is turned over the apparatus should describe a cylinder and not a cone around the motor shaft. When the cone *A* is mounted on its shaft *E*, it should be possible to make a complete revolution of the crankshaft. This is a condition often difficult to obtain with the motor mounted on the chassis. It is possible to attach the apparatus to the cranking lever, though this is not to be recommended, and the better way would be to place the motor temporarily on blocks.

Supposing now that the blade *D* is fixed to the motor, that the shaft *E* is exactly parallel with the crankshaft, and that the whole apparatus has been attached to the shaft *E*. The first operation is to make the hole, *exhaust*, correspond with the hole, *zero*, which indicates the upper dead center. The motor is now revolved until the piston has reached the upper dead center, and the plate *A* is turned round until the spirit level attached to it indicates a perfectly horizontal position. At this point the thumb screw is tightened up, thus securely attaching the plate *A* to the shaft *E*, and the apparatus is ready for service. (See left hand drawing of Fig. 3.)

To regulate, for instance, the exhaust valves, the pin *C* is withdrawn and placed in the holes noted; this time the motor

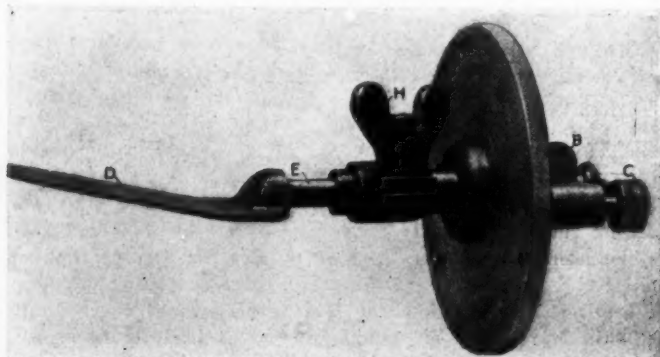


Fig. 2—Profile view of the Larrad. A, disc; B, spirit level; C, pin; D, blade for attaching; E, shaft to be fixed parallel with the crankshaft; H, winged nut fixing disc A to shaft E.

is turned over until the horizontal has been obtained, this being the exact position at which the exhaust valve should commence to rise (center of Fig. 3). All other timing is done in the same way, without dismounting the apparatus from the motor. Thus, for the closing of the exhaust valve (right of Fig. 3), the pin is placed in the hole *exhaust* of the base of the spirit level and the hole *closing* of the plate, and the motor turned until the spirit level indicated that a horizontal position has been obtained again.

It is hardly necessary to point out here the methods of modifying the timing of a motor. The Larrad apparatus, also, only indicates the positions of the crankshaft corresponding to the different cycles of the motor, leaving it to the mechanic to lengthen or shorten the tappet rods or change the position of the cams on the shaft in order to obtain the opening of the valves or the production of the spark at the point indicated by the apparatus. It should not be overlooked in employing the instrument that the cycle of a motor occupies two revolutions, and that the Larrad apparatus does not indicate during which of these revolutions the timing takes place.

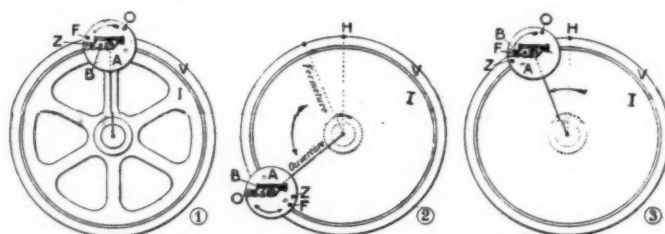


Fig. 3—Larrad apparatus mounted between the cone and flywheel. 1, Position of upper dead center; 2, position of opening of exhaust; 3, position of closing of exhaust. A, disc, pierced with holes; B, spirit level; F, closing of exhaust; H, dead center point; I, clutch cone; O, opening of exhaust; V, flywheel; Z, upper dead center point.

As will be readily perceived, the apparatus is easily employed and permits of minuteness in the regulation of a motor. By thus eliminating vague groping, it should become of considerable service to constructors if they would modify the disc and pierce it in a manner to correspond with their own engines. Unfortunately the inventor has only made one type of disc, his idea probably being that his type was the only perfect one.

MICHELIN TOURING GUIDE IN ENGLISH.

There is no necessity for eulogy in connection with the guide books published by the Michelin Tire Company of France, Italy, and America. The mere fact that the French guide has a certified circulation of 60,300 copies for 1908 and is in the hands of every autoist touring France is sufficient proof of its value. Though consisting of over 600 pages, it is produced of such dimensions and in such a compact manner as to be carried in the pockets of a car without any inconvenience and to be consulted with the greatest facility. In addition to information on practically every town in France and detail maps of the most important cities, there is a complete sectional map in colors of the whole of France and very detailed maps in two colors of the most important cities. Very complete touring information is supplied, and there is a quantity of interesting matter on tires well worth the consideration of all automobilists.

Owing to the large number of English-speaking people making use of the Michelin guides for touring in Europe, the company has decided to reproduce the complete volume this year in the English language. This edition, which will be as complete in every respect as the French volume, will make its appearance in a few weeks. The Michelin guides are distributed free to all autoists desiring a copy and can be obtained from either the Paris headquarters or the American factory at Milltown, N. J.

LETTERS INTERESTING AND INSTRUCTIVE

STARTLING SCHEMES OF AN OLD INVENTOR.

Editor THE AUTOMOBILE:

[1,377.]—You are a good judge of auto schemes. I have a scheme that I believe will take. It is this. With my boiler (a coal burner) I can evaporate far more water than any auto boiler made, as I can get three times the heating surface. I can make a one-seat auto that can make 100 miles in one hour on a racetrack, and with my steel tires with corks in it will not skid, and I can turn corners much faster than a rubber-tired car. My scheme is this: make such a car, then challenge any gasoline auto for a race on a track at Coney Island. Now, in your opinion, would there be a large crowd to see the race at 25 cents admittance, the race to be 100 miles? I am set back a couple of weeks with my auto on account of a flaw in one of the boiler heads. I had to send it back to New York to get a new head. I hope to call on you with the car by the middle of June.

I also have a scheme to keep the car from upsetting going round curves. I will place a pole 8 feet long on the left side of car, hinged so as it can be raised upright when on straight track and let down horizontally going round curves, and an athletic boy to slip out to the outer end of the pole, then slide back as the turn is made. This, with the corks in tires, will enable me to go fast turning corners without danger of upsetting. I will burn coal in this, my first auto. I can make steam much faster with coal over either gasoline or kerosene. I deliver the gases from outlet under the car floor, nothing being visible in the fire box.

Oneonta, N. Y.

W. W. HAZELTON.

With a good promoter back of it, such a scheme as you outline in the first part of your letter, should be a success, as the crowd that flocks to Coney Island on holidays and Sundays in summer is quite willing to pay to see anything novel in the way of a sensation—the more sensational it is, the better.

Regarding your proposed method of preventing a car from overturning in rounding a curve, we are not quite so optimistic. It would be out of the question to try it on tracks as constructed at present owing to the fence that surrounds the inner field. Why not substitute a sliding weight, that could be pulled out or in according to the requirements, for the "athletic boy"? Although there would be no great difficulty in getting someone foolhardy enough to take the risk. The weight would be a little more positive method. It would be out at the end of the pole when you wanted it and you would not be so apt to lose it by the way.

WHO CAN SHED ANY LIGHT ON THIS MYSTERY?

Editor THE AUTOMOBILE:

[1,378.]—Probably you would be kind enough to help me out on the question of circulation of water through a six-cylinder engine with a gear pump.

What is the cause of the water heating down through the pump after running the engine 5 or 10 minutes? I have had the pipes from the pump disconnected, also the one from the cylinder to the radiator, and attached the garden hose to the same, and forced a stream through cylinders. I also tried the radiator the same. I then filled the radiator, started the engine, and the pump pumped the radiator empty. I tightened the fan belt, so that is O.K., and adjusted the carburetor in every possible way. Have it at present very nearly closed, so that the mixture is as weak as is possible to make it run. Therefore, with no stoppage in the radiator, not any in the cylinders, or pump, I am at a loss to solve the mystery, and light on the matter would be much appreciated.

Portland, Pa.

M. B. HAUSER.

With the small quantity of water carried on the modern car, and the rapidity with which it is circulated, it is nothing out of the ordinary for it to become warm throughout the entire circulating system, after the motor has been running for ten minutes, so that if this is the only thing complained of, we do not see that there is any fault to be found. You do not say that the motor overheats badly, water boils away or anything of the kind. The only time the water should really be cold is when the motor has not been running for an hour or more; otherwise, it should be as hot as it can be maintained, short of boiling, and with the motor running steadily, there will not be a great deal of difference between the temperature in the jackets and at the pump.

WHICH IS THE EASIEST ON THE MOTOR?

Editor THE AUTOMOBILE:

[1,379.]—We have ordered a seven-passenger, six-cylinder touring car of 54-horsepower, A. L. A. M. rating, and 36-inch wheels. The maker wishes to have a ratio of 2.5 to 1, and claims that it reduces the wear on the engine. It seems to me that a ratio of 3.5 to 1 would be better for such a hilly district as Pittsburgh. If the engine is running faster, it is not straining as much, so I think the wear would be nearly the same in each case. A car geared 3.5 to 1 would be easier to run through the city, and better for touring in this locality, as it could accelerate more rapidly between the water-breaks which are so abundant near here.

Please explain fully the pros and cons of this matter, as it has been the source of many arguments.

Allegheny, Pa.

MURRAY FAHNESTOCK.

The reason for providing a car with a certain gear ratio, is to enable its motor to run at its normal speed, or at as near that rate as possible, while the car is travelling under different conditions. Thus gearing a car very low, would make it necessary to overspeed the motor in order to obtain a fair speed on the level, though such a car would be in its element on the hills and should climb anything "on the high." Gearing it up, on the other hand, would make it very fast on the level without the necessity of speeding the motor above normal, but it would make a poor car for hill-climbing or city use. Most designers have attempted to strike a happy medium by adopting something that will not go to either extreme, and thus be found suitable for the use of the greatest number without alteration. But such an expedient naturally does not fit a car for particular uses, such as that you wish to put your new machine to.

With regard to the argument put forth by the maker, a certain gear can hardly be said to reduce the wear on the engine, unless the car with that particular gear is used more or less constantly in a locality adapted to it. A very high-geared car will have to strain its motor constantly in a hilly district, at least where the nonsensical practise of trying to drive it over all kinds of hills on the high, is followed, as the motor will be called upon to deliver its maximum power at a speed considerably below its normal r.p.m. rate, and will have to labor to do so. But a car with a very low gear will be equally abused where driven constantly on level roads, owing to the necessity of racing the motor to obtain higher car speeds. We should advise the adoption of a 3 to 1 gear for the car you have in mind, and this with the logical and reasonable use of the shifting lever wherever required, will give a machine that will have more than enough speed on the level, coupled with the ability to climb anything in the way of a hill, with its full load up.

DIFFERENCE BETWEEN NAPHTHA AND GASOLINE.

Editor THE AUTOMOBILE:

[1,380.]—Will you kindly answer, through the columns of your paper, the following question given below?

What is the difference between naphtha at 74 degrees and gasoline at 68 degrees? Would naphtha testing 74 degrees be all right to use in an automobile, and would I realize any more power than using gasoline testing 64 to 68 degrees?

SUBSCRIBER.

Milford, N. H.

In this country, naptha is merely a trade name as commonly used and where called for in the ordinary course of affairs, the substance supplied is naphtha, gasoline or benzine, as the tradesman happens to designate it. Originally, the term was employed to indicate one of the lighter distillates of petroleum, and is only distinguished by the difference in density or specific gravity. It is not a totally different substance, though there appears to be a popular misconception on this point. Crude oil is separated into its components by means of what is known as fractional distillation, the temperature being controlled during the process in order that the various substances may be evaporated consecutively in the order of their relative densities. Prof. C. E. Lucke classifies petroleum distillates as follows: Petroleum ether, 85

to 80 degrees Baumé; gasoline, 80-78 degrees; naphtha, three grades being enumerated, 78-60 degrees Baumé. Then comes kerosene, and next lubricating oils. The Baumé scale must not be confused with specific gravity, as is so commonly done, 80 degree gasoline having a specific gravity of .66. Garagemen and supply dealers commonly regard these terms as interchangeable, consequently what they offer as "72, or 74 gasoline" may, in reality, be something not far from kerosene, the specific gravity of which is .753, or higher, but the density of which ranges from 56 to 32 degrees Baumé.

It is a matter of common knowledge that the refiners no longer find it profitable to attempt to market the lighter distillates, owing to the very small quantity contained in crude oil. Hence, there is very little fuel to be had on the market at present, lighter than 64 to 68 degrees Baumé, or .70 to .72 specific gravity. This will answer your query regarding the difference between gasoline and naphtha. The difference in the fuel values of the different distillates ascends as they get heavier, kerosene being credited with a slightly greater number of heat units per pound than gasoline, but the heavy liquids are not as available, as they do not vaporize as readily. A slight adjustment of the carbureter may be necessary to take care of the difference in fuels, but this is not ordinarily the case except where maximum economy is aimed at, so that you will find practically no difference in the action of the motor on the fuels you mention.

WHAT IS THE CRITICAL SPEED OF THIS CAR?

Editor THE AUTOMOBILE:

[1,381.]—Please answer the following, under the head of "Letters Interesting and Instructive."

At what speed would a car of the following description consume the least fuel? Motor two-cycle, four-cylinder, 4 1/2-inch bore by 4-inch stroke, geared 3 to 1, with 34-inch wheels.

Would four-inch tires on this car, which weighs 2,500 pounds, be sufficiently large for occasionally carrying seven passengers? What are the gear ratios of the following cars on the high, low and intermediate speeds? Thomas, Stearns, Ford six-cylinder, White Steamer, and Reo.

INQUISITIVE.

New York City.

It would be impossible to state what the critical speed of a motor is without more data than you give in your letter, although as a matter of fact, it would not be easy to make calculations that would be much more than an approach to the speed at which the motor in question would run most economically. A cut-and-try method would be the only manner of ascertaining this definitely, and slight influences would be apt to influence this one way or other. Assuming your engine to develop about 30 to 35 horsepower, it would doubtless be found to run most economically at a speed ranging between 25 and 30 miles per hour. At speeds of from 10 to 20 miles an hour it would be comparatively wasteful of fuel, particularly at the lower range of its speeds, and this would again be found to be the case when it reached 40 miles an hour and over, though the increase in fuel consumption is not quite as sudden at speeds higher than the car's critical speed within a certain range, as it is below this point.

Four-inch tires should give very satisfactory service on a car of this weight, and no inconvenience should result from the occasional carrying of overloads, in case the tires are kept well inflated at all times. This is far more important than taking a little extra weight in the car.

After a long wait for the information, we have received the following regarding the Stearns, Ford and Thomas cars. We have received no reply to our inquiries concerning the gear ratios of the other cars mentioned in your letter. On the Stearns, assuming a motor speed of 1,000 r.p.m., the rear wheels make 89 r.p.m. on the low and reverse; 182 on the second speed; 265 on the third, and 360 on the fourth or direct drive, giving gear ratios of 11.35 to 1, 5.5 to 1, 3.7 to 1, and 2.7 to 1 respectively. These figures are not exact, not having been figured beyond one or two decimal places. The sprockets employed to give this result are 24-tooth front and 40-tooth rear. The gear ratio of the Ford six-cylinder car is 3 to 1 on the direct drive, and 7 1/2 to 1 on the low, only two speeds being provided. With a 28-tooth

front sprocket and a 52-tooth rear sprocket the gear ratios of the Thomas Flyer are 12.025 to 1, on the reverse; 9.84 to 1, on the first speed; 5.99 to 1, on the second; 4.22 to 1, on the third, and 2.785 to 1, on the high.

GEAR RATIOS OF A THOMAS FLYER.

Editor THE AUTOMOBILE:

[1,382.]—Kindly tell us the gear ratio of a 1908 Thomas car where the bevel gear on main shaft has 30 teeth and bevel gear on countershaft has 44 teeth. The sprockets on countershaft have 32 teeth, and the sprockets on the rear wheels have 52 teeth. Kindly give us your method of figuring same.

ADOLF A. GEISEL.

Springfield, Mass.

According to a blueprint furnished us by the makers of the Thomas cars, the only options given on the 1908 models of the Thomas Flyer, i.e. Models F and K, are 28, 30, 33 and 35-tooth driving sprockets, so that we presume you must have made an error in stating that the sprockets on the car in question have 32 teeth. With 33-tooth front sprockets and 52-teeth rear, the gear ratios are as follows: On the direct drive, 2.36 to 1; third speed, 3.58 to 1; second speed, 5.08 to 1; first speed, 8.35 to 1; reverse, 10.2 to 1. Dividing the number of teeth in the large gear of the drive, by that of the bevel pinion, will give the number of turns that the latter will have to make for one of the former, and the same operation in the case of the driving sprockets will give their ratio. For instance, it is evident that with a 50-tooth gear, driven by a 25-tooth bevel pinion, the latter must make two revolutions to one of the gear, and, assuming front and rear sprockets of the same number of teeth respectively, it is also apparent that their relative rates of speed will be the same as that of the bevel drive on the countershaft. Hence, when on the direct drive, or high gear, the crankshaft of the motor would be making two turns for every one of the countershaft, and the latter would be making two turns for every revolution of the rear wheels, and the gear ratio of the car would be 4 to 1.

POINTERS FOR A SECOND-HAND PURCHASER.

Editor THE AUTOMOBILE:

[1,383.]—I am contemplating the purchase of a Darracq (second-hand), on which the former owner made the wheelbase 14 inches longer than the manufacturer. He thought it would ride easier, thus the change. Which would be the better, to leave it as it is, or change it back to where it was when new? What would you do to try it to see if it is O.K.? I have seen it assembled and know that it is in first-class shape, and have seen it running in the stand. It has a new timer, transmission (sliding) and two tires. How long a road trial ought it to have to see if any of the bearings or engine heats up or works loose?

DARRACQ.

Allegan, Mich.

Whether it is advisable to alter the lengthened wheelbase to what it was formerly or leave it as it is, would depend to a very large extent on how well the job was carried out. As you saw the car assembled, you should be in a position to judge of this. The longer wheelbase is an improvement on an old car, as it was one of the worst failings of designs current prior to 1904. It makes a great improvement in both the steering and the riding, and if the change was well done, it would certainly be a mistake to undo the job. From what little you say of it, the car would now seem to be in excellent shape. We should prefer a full day's run of 100 miles or more, as the short demonstrating ride usually given proves nothing except that a car will run without trouble for a short distance. It is valueless as a test of a car.

FAILURE TO RESPOND TO THE THROTTLE.

Editor THE AUTOMOBILE:

[1,384.]—I would like to have your opinion, through "Letters Interesting and Instructive," of the trouble with a Schebler carbureter from the following symptoms: The car will not speed up unless the spark is very high, and opening the throttle has no effect at all until it is very nearly wide open, when the car speeds up, but not as fast as it ought. Running slowly with the throttle closed and the spark very little advanced, opening the throttle has very little, if any, effect; but if the throttle is quickly thrown wide open and as quickly closed (without advancing the spark at

all), the car speeds up considerably. The car is also somewhat sluggish, and very slow to pick up.
New York.

Judging from the symptoms of the trouble that you give, the cause would appear to lie in a deranged auxiliary air-valve. This, particularly from the fact that the sudden opening of the throttle to its full width causes the motor to speed. See if the auxiliary air-valve has not become deranged in some manner so that it does not respond readily, as where this is the case, the mixture becomes overrich, owing to lack of the proper quantity of air, and the motor instead of gaining power and speed, acts very sluggishly. Take this auxiliary valve out and start the motor by closing the secondary air outlet with a piece of cardboard. Then work the throttle, giving more air proportionately to the opening of the latter by sliding the cardboard back from the aperture, and note the result. A little experimenting of this kind should reveal the cause. Clean and adjust the auxiliary valve, replace and regulate in the same manner until the motor runs satisfactorily.

CAN ANYONE IDENTIFY THIS MOTOR?

Editor THE AUTOMOBILE:

[1,385.]—I have an engine, the "paternity" of which I have been unable to trace, and wish to know if you can give me any information that will help me to locate the manufacturers. It has four cylinders, cast separately, valves offset on opposite sides of cylinders mechanically operated, spark plugs in center of cylinder heads, standard (1-2 inch) thread, camshaft, pump and timer gears all inclosed in front of crankcase, connecting rods look like brass. The only marks on it are parts that have a number followed by the letter B.

Brighton, Ill.

The features you mention are characteristic of several motors that we have in mind, barring the bronze connecting rod, that we are not certain of, this part of the motor seldom being exposed to view. But they are not sufficiently distinctive to narrow the choice down to one, so far as we are concerned, so we are referring the query to our readers, some of whom will doubtless have had experience with the same make of motor and can name it offhand. If some subscriber who is in a position to do so will supply the necessary information it will be published in these columns, or transmitted direct to the inquirer.

DOES POOR TIMING CAUSE THIS TROUBLE?

Editor THE AUTOMOBILE:

[1,386.]—Through "Letters Interesting and Instructive" please advise me in regard to this annoying trouble. Have a Maxwell runabout which pounds in one cylinder running light or under load, spark advanced or retarded, but ceases when run with this cylinder dead. Have lengthened the valve stem a very little and the pound ceases, but also with the result of loss of power. Under these conditions I find face of valve dirty, evidently caused by loss of explosion on account of valve not seating properly. Have then shortened valve stem, allowing it to seat properly, and valve is bright and there is the power, but also the pound. Is not the seat of this trouble in the timing; that is, the exhaust valve not opening soon enough?

Kalamazoo, Mich.

Failure of the exhaust valve to open soon enough would be responsible for a great deal of back pressure on the piston, and this would doubtless manifest itself by a pounding noise. The exhaust valve should begin to open before the piston reaches the lower end of its downward course on the power stroke, so that it will be fully open at or just before the dead center is passed. The amount of this so-called lead varies with different designers, but you can ascertain about how much it is on your motor by checking up the action of the valve on the other cylinder. Look at the cam of the valve in question and see whether it is worn, or has become displaced. Wear of either the cam or the valve tappet would naturally tend to make the time of opening the valve later and as soon as this became sufficient to cause it to remain down on its seat beyond the point at which the cylinder should exhaust, the energy stored in the flywheel has to force the piston back against the cylinder full of gas and this would account for the noise, or pound, that you mention.

ABOUT GRINDING CYLINDERS BY HAND.

Editor THE AUTOMOBILE:

[1,387.]—Inclosed you will find a letter from E. Sparenberg, of Peru, Ind., in answer to my query published in "The Automobile" of May 7. I think this letter is of great value to some of your readers, and I would be pleased if you would publish it in your next issue:

"Mr. V. R. Lane:

"I was much interested in your query in "The Automobile" concerning compression. As I have had considerable experience in motor and auto building, probably I could help you out a little in your trouble. As is well known, the very slightest leakage reduces the power greatly. That is why manufacturers of high grade motors spend so much time and money to finish the cylinders so elaborately. In a motor of my own design and build, I did just what you are considering doing; that is, grinding the cylinder with an abrasive while it is in motion. Fairly good results were obtained in that manner. I then tried another method, which was far more satisfactory, and which I would do if I had your motor. First I took the cylinders, pistons, and connecting rods off and ground the cylinder out by hand by working the piston back and forth, with rings off. I used emery dust, and while working the piston kept turning it around continually. In this manner the cylinders were ground out perfectly, great care being taken not to grind too much. I then had new pistons and rings turned, which, by the way, is not very expensive, and fitted them very carefully. The rings should be doweled, the pin, of course, coming at the joint. The new pistons should fit tightly, that is, so you can just work them by hand, and plenty of oil should be fed until they are worn a little. I am talking from experience, not from theory, and hope this information will be useful to you."

Peru, Ind.

E. SPARENBERG.

"Letters Interesting and Instructive" have been of great value to me and, I presume, to many of your other readers.

West Liberty, Ia.

V. R. LANE.

FOR AUTOISTS SEEKING PUNCTURE INSURANCE.

Editor THE AUTOMOBILE:

[1,388.]—In regard to note from E. Eiseman, No. 1,352, in regard to internal tire protectors, better advise him to try the Dow inner tube. I have tried the External tire protectors and, while they do all they claim, they detract from speed and make a car "lumpy." I have gone on the principle that no matter what the financial cost, anything which would do away with the fear of puncture without interfering with speed, resiliency and responsiveness of the car, was cheap. The metal inside tire protectors have been tried by many and discarded as unsatisfactory. I have just tried the Dow inner tube long enough to feel safe with them and, while the first cost is excessive, the knowledge that you can drive a nail through your tire and tube if you want to and have it seal itself perfectly without the loss of air, is worth to me all it cost.

The tube itself is a very heavy one, with the tread double; between the two layers of rubber is a plastic material incorporated with feathers, which does the trick. The first time I went out with one I picked up a piece of board containing a nail which pierced the tire and tube, and with any other tube would have resulted in deflation and later repair. I pulled it out and have paid no further attention to it, and the tire is still hard. It seems to me to be the best device yet, and I therefore pass it along.

ELIOT GORTON, M.D.

Summit, N. J.

AGREES WITH MR. KRARUP ON SPECIAL STEELS.

Editor THE AUTOMOBILE:

[1,389.]—I have read with a great deal of interest Marius C. Krarup's comments on "Special Steels." For the last eight years I have been connected indirectly with the manufacture and operation of motor vehicles, especially commercial vehicles, and must say that my observations and experience tend to confirm all of his statements from No. 1 to No. 5. For commercial vehicles, whether taxicabs or heavy trucks, where vibration and road shocks are excessive, I should much prefer to see a low point carbon alloy steel, never over 30 point, used, and that the cross-section of the various parts, especially axles, steering knuckles and connections, should be large.

The parts as ordinarily designed may be large enough to withstand all ordinary shocks and vibrations for several months, but the time is sure to come when some shock is met with, a little greater than before, when any one of these parts will fail. A slight increase in cross-section or size of the parts mentioned will not increase the weight or first cost of the vehicle appreciably, but will be the best insurance the purchaser can have. The commercial vehicle has only to break down once and be towed in and remain out of commission for a day or so to more than offset any first cost that the above may entail.

Boston, Mass.

ALEX. CHURCHWARD.

MASSACHUSETTS TO HAVE MILITARY-GUARDED ROAD RACE

LOWELL, MASS., May 25.—Since the announcement a fortnight ago that an automobile road race was to be held just outside this city on the Fourth of July, the "Merrimac Valley course," as the circuit has been christened, has been visited by



Merrimac Valley Course, where the Steepest Climb Presents Itself.

large numbers of autoists, including some of the prominent racing men of the country. And all who have driven over the roads that are to be used have come away well pleased and have expressed the opinion that the Lowell race should be one of the speediest and most exciting ever held in America, not even excepting the great international contests that have taken place in the vicinity of New York. The circuit is only ten miles long, and is to be covered twenty-five times to make the 250 miles of the race. On almost any course so many circuits would be extremely trying on the drivers, but the Merrimac Valley course is peculiar in that it consists of practically two straightaways with none but easy curves and a turn at either end. Lowell Automobile Club has charge of the contest, and the officers and committees are hard at work preparing for the race. Besides the valuable Butler Ames trophy, three cash prizes have been offered of \$500, \$250, and \$125 for the drivers finishing first, second and third respectively.

It has been decided to start the race on the boulevard, where there is a straightaway of considerably more than a mile. This situation will make it possible for the spectators in the stand to see the racers at full tilt, and the stretch offers opportunity for speed not equaled even by the famous Jericho turnpike. The scene of the greatest bursts of speed in past Vanderbilt Cup races. Some distance from the start the boulevard swings to the right with an easy curve and then to the left around a bend in the river. Then comes the first difficult place, a double curve opposite the Vesper Country Club. This curve will not cause

any trouble to a driver well acquainted with the course. From the double curve the smooth macadam roadway continues up the river bank with only one curve to the Tyngsboro bridge, where the upper turn is located. Here the course swings to the right

and the cars will make a semicircle into the back stretch. This turn is in good condition for speed, but for the race it will be banked.

Immediately after entering the backstretch of Willow Grove avenue there is a long fifteen per cent. grade that has to be surmounted, and then a sharp pitch into a hollow and another climb, the steepest in the course. The road is straight and has a good surface, so these hills will supply only the needed variety from the level boulevard. Entering Varnum avenue there is a fine smooth roadway all the way back to the city. In lower Varnum avenue there is a car track, but

there is plenty of room on the sides, and the street will be closed during the race. At the lower turn there are to be banked corners, a cross street being taken for the purpose. This will bring the races into the lower end of the boulevard and give them time to straighten out and attain highest speed before reaching the grand stand.

There is ample room along the boulevard for parking spaces and for throngs of spectators, and the Lowell Club is planning



Two-mile Straightaway 50-foot Road Near Start.

to take care of a great crowd. The course will be patrolled by militiamen, and arrangements are being made to secure fifteen companies for the purpose, so that there will be ample protection for every foot of the course. This will be very necessary on the straightaway stretches near the start and finish, as the ground there is very flat and ample precautions will have to be taken to guard against the crowd spreading out over the road at these points. As a matter of fact, a very large part of the course is favorable to the crowding of spectators, and that this is realized is evident from the thoroughly businesslike precautions that the promoters of the race are taking to guard against interference from this source. The manner in which these measures are being carried out might well be patterned after elsewhere, as it is the intention of the promoters of the race to leave nothing undone that will tend to insure a clear course for the contestants and the absolute safety of the spectators.



Where the Long Grade Begins Just After Making the Upper Turn.

HOW THE A. A. A. TOURING BOARD DOES ITS WORK

By T. J. SULLIVAN.

BUFFALO, May 25.—From the date of the quarterly meeting of the directors of the American Automobile Association, to be held here June 2, to arrange for the National Good Roads and Legislative Convention, to the departure of the caravan of cars on the reliability contest for the Glidden and Hower trophies, July 9, Buffalo expects to emphasize her present claim to the title of the "Capital of American Motordom." Thus far her claims to the distinction rest upon the circumstances that this is the abiding place of President William H. Hotchkiss, of Chairman Frank B. Hower of the Touring Board, and of Dai H. Lewis, secretary of the latter-named body and pathfinder of the reliability route, and that here is the headquarters of the Touring Board.

Not unknown to fame is the chairman. Many who took part in the Cleveland-Chicago-New York tour of last July recall with various feelings the shock they received when they attempted to handle the chairman of the Touring Board and bend him to their own ends. He looked quiet and pliable, but they found him a live wire. The thirty-five newspaper representatives, partially accustomed to having officials come to them on the jump when they crooked their finger, hardly knew what to do when Chairman Hower jumped on them. Finally a few of them decided that they would roast him. And they did. There were few who arrived in New York without a liberal brown from the sun and dust of the tour, but the chairman must have felt cooked through.

The offended scribes roasted him the first day from Cleveland to Toledo because the pace was too slow; the next day they roasted him because the pace from Toledo to South Bend was too fast. Because some contestants took muddy turns too fast with resultant disaster, the chairman had to stand the blame. Newspapers throughout the country were shrieking with the "suicide race" as a grateful relief from the former absorbing topic of "race suicide." When the chairman took the matter in hand and went ahead as pacemaker, the hypercritical correspondents hounded him for that. The pacemaker started a half-hour ahead each day, the contestants starting each a minute later thereafter, then tore madly over the landscape until they bumped the rear axles of the chairman's car and of one another, riding in a cloud by day and a pillar by night, and accumulating strata of dust on their features until they looked like an excursion of grain scoopers. And Chairman Hower was cursed for the dust, too.

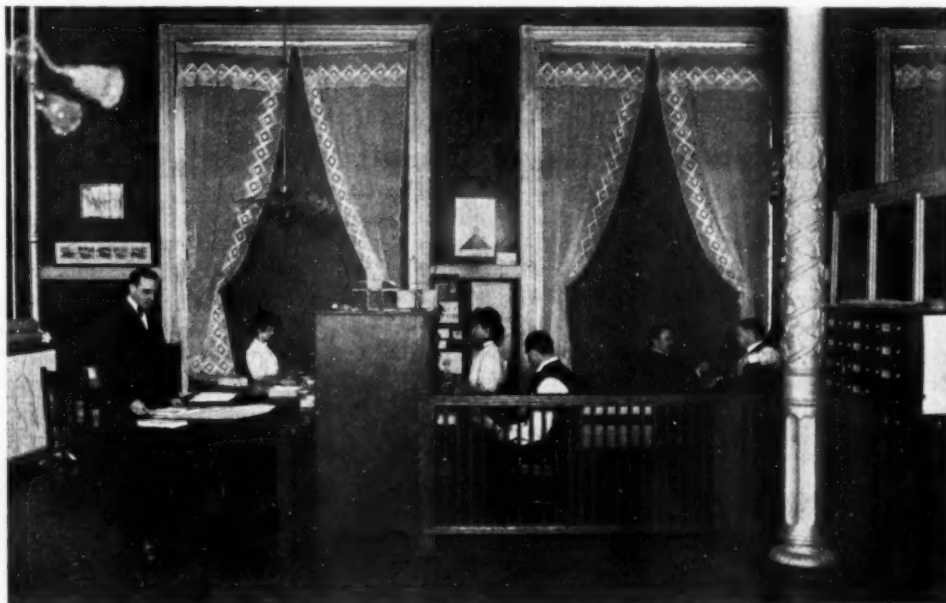
"Why doesn't he go faster or get out of the way," raved the Hotspurs of the pens that two days before were filling columns with lurid descriptions of "The Race of Death."

But the "Napoleon" went on his uncompromising way. Other members of the touring committee insisted on having their way, and in every case where he yielded a mistake was rung up. Finally, he paid no attention to protest or "holler," but took absolute charge of the tour. And between their clamorings, the newspaper men noticed that Chairman Hower was making good. The tour, they admitted, was conducted without suspicion of graft, and every entrant received a square deal. And as the profession is basically fair and only occasionally hysterical,

it befell that by the time the tourists arrived in New York they voted unanimously that "Napoleon" Hower was a good fellow and that the tour the most successful on record. The "All's Well that Ends Well" came when he was appointed as the "Committee of One" to conduct this year's tour, with nearly universal approbation.

What Is Being Done at Touring Board Headquarters.

But while Chairman Hower's work in connection with the annual tour is well known, few are aware of the other matters that keep him and five assistants busy every day in the year, aside from Sundays. The annual tour, heretofore known as the Glidden Tour, is a mere incident in the year's work. It is the traveling show conducted by the Touring Board to advertise the ability of touring cars and runabouts to travel any distance over American roads and to visit any Summer resort by seashore or on mountain with the maximum of enjoyment and the minimum of discomfort in traveling. It requires months of prepara-



Headquarters and Staff of Chairman Hower in the A. C. of Buffalo.

tion and volumes of correspondence, but even its preparatory period is a mere chore in the day's routine under the sign "Office of the Touring Board, A. A. A.," which marks off the front part of the assembly room of the Automobile Club of Buffalo as the "Capital of Tourdom."

The larger work of the Touring Board arises in connection with the supplying of information to tourists all over the world. Every year, the destiny of the automobile as the chosen vehicle for touring is becoming more definitely fixed. As soon as the Winter is gone and roads become settled, the hegira of auto tourists begins. Southerners lead off by starting northward for the Niagara Frontier, the Lake region, and the seashore. Westerners follow, fleeing from the midland heat to the lakes, the seashore and the mountains. The Easterners swell the caravans from the big cities, traveling from one Summer resort to another.

The auto has superseded the railroad coach in these climatic migrations. No more the stuffiness and cinders of the railroad train, the dependence upon the mercenary Senegambian, the passage through cuts and tunnels and the grimy parts of towns. Instead, for people even of moderate means, the flight across the landscape in autos that glide as lightly as a cloud shadow

across a meadow; the scent of wayside flowers; the caresses of the flight-created breeze; the companionship of birds; the coolness and beauty of roads through forests; the entrance and departure from cities and towns by the most beautiful streets where the people live, instead of the backyards and gables seen from train windows. It is this increasing custom of touring that is piling up work for the Touring Board, and particularly for Hower, the "Burgomeister of Tours."

Aid for 165 A. A. A. Clubs Available.

The Touring Board is composed of secretaries chosen from the 165 automobile clubs affiliated with the A. A. A. and chairmen of the touring committees of these clubs. Say that Col. Pierre Toutant Beauregard of Memphis, Tenn., desires to travel from that city to Saratoga with his family, in his touring car. Probably he writes a letter to the secretary of the automobile club to which he belongs. In any event, the letter is forwarded to Chairman Hower and his assistants get busy. They are busy, anyway, for about 300 such letters are received daily. They resort to files arranged alphabetically where routes and route maps are stored away. Back to Memphis by return mail goes a fat envelope filled with the information which Col. Beauregard desires to know. He is conducted from city to city from Memphis to Saratoga. The furnishing of this information implies vast preliminary work. The board is in constant communication with all of the secretaries and touring committees of the 165 affiliated clubs, seeking information concerning routes. Clubs are encouraged to lay out touring routes to the nearest cities.

Information and Aid for Those Who Go Abroad.

Another useful function taken up by the Touring Board is the furnishing of information to tourists who wish to take their cars abroad. Representatives of the Touring Board in foreign countries are in constant communication with the Buffalo headquarters, furnishing the latest information obtainable in regard to customs charges, speed restrictions, chauffeurs' licenses, and routes, so that any member of a club affiliated with the A. A. A. or any individual member may start for Europe equipped with all essential information. Arrangements are also made for him whereby an express company will take charge of the shipping of

his car through all of the customs houses he may encounter between his departure and arrival home.

A. A. A. Clubs Are Placing Many Signboards.

Still another field of usefulness of the A. A. A. Touring Board is the promotion of signboards at crossroads all over the country. The Board has made arrangements with a firm of manufacturers to supply any number of signs at \$1 apiece. The planting of these signs in places where they will do the most good is urged upon the various affiliated clubs. Under the encouragement of the Touring Board, these signs are springing up all over the country. They give the distances between cities along prominent routes and trunk line roads, indicating the way by unerring arrows.

The registration of non-hold-up hotels has been begun this year, and is expected to be completed as far as the route of the reliability tour is concerned in time for publication. Every hotel-keeper in every city along the route has been written to, urging him to send in the regular rates of his hotel. The same system has been employed to secure a trustworthy list of official one-price garages. Ultimately, the list of hotels and garages will include every tourist route in the land.

A NOTABLE WESTCHESTER COUNTY TRAP.

During the greater part of 1907 Merritt Corners (in Westchester county, on the most-used road to and from Briarcliff Manor) was made more or less famous by the "trap" maintained there practically all of the season by the country justice. His persistence and methods made it appear practically certain that the financial returns were one of the objects of the "trap," to which a large number contributed unwillingly, especially on Sundays and holidays.

The "justice" is on hand again for 1908, with his "trap" in the same good working order it was during 1907, but with the exception that he has moved it a trifle to the south, near the well-known "S curve" at Echo Lake. This was evidently done to take unawares those who might be forewarned of the "trap" at Merritt Corners, and another reason for moving it down to this point was doubtless to "catch" a number who could not very well go around the curves at that point at "four miles an hour," which the justice seeks to enforce.

Within the past week one accident has occurred at this point, due to the fact that the constable stopped a car in the middle of the road, and would not allow the driver even to pull it to one side. This was clearly carrying matters too far, and when another automobile came up from the rear and ran into the stalled car (something that could hardly have been prevented under the circumstances, no matter how slowly one might be driving around the bad curves at that point), the owner of the car was thoroughly aroused. At the present time plans are formulating to sue the township for the damage done the car under these circumstances, and the result of the contest, which will be pursued with vigor, will be awaited with interest.

DIXIE IS ALSO ALIVE TO AUTO DOINGS.

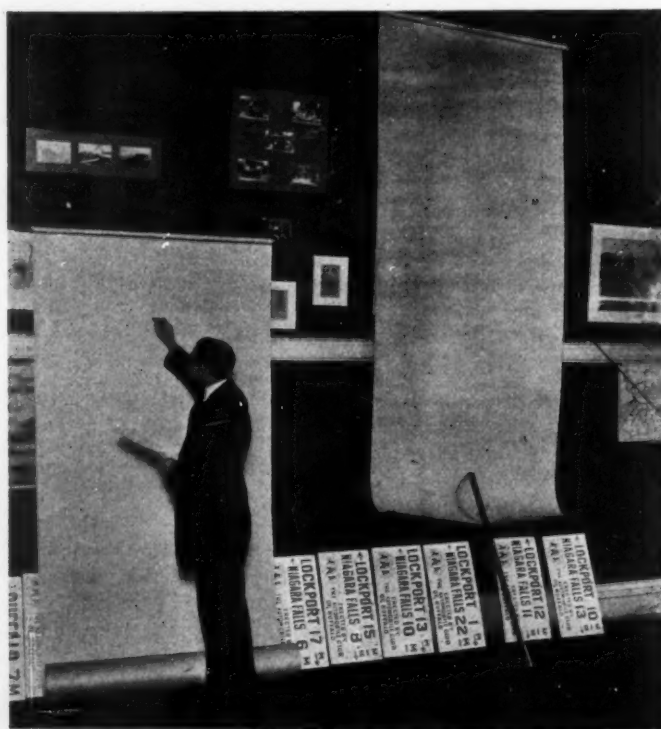
Automobiling is gaining in the South, and these items, culled from Southern newspapers, tell the story of progress.

The automobile from West Point passed through our community Sunday, causing several horses to get badly frightened. No one was hurt.—"Opelka (Ala.) Post."

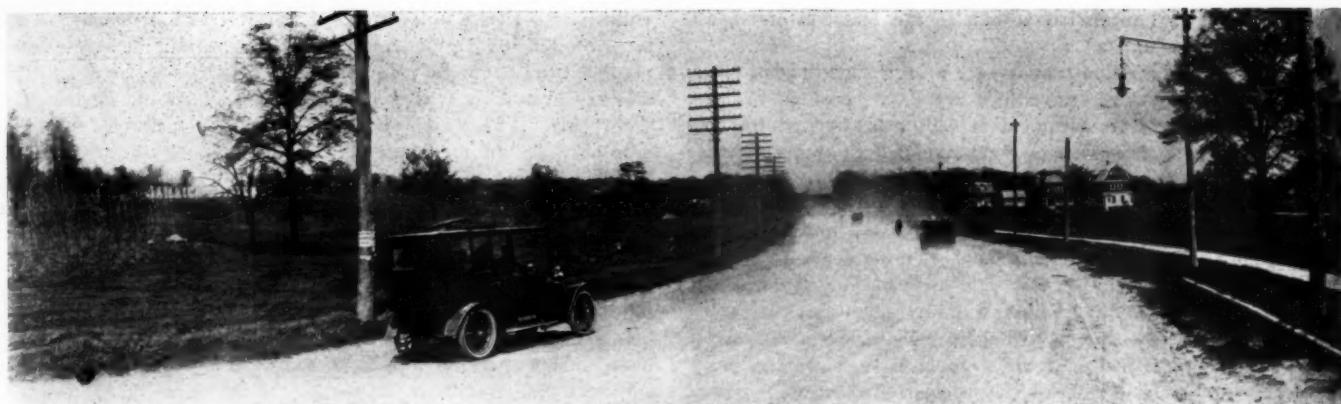
An automobile line, with hourly trips between Jacksonville and Anniston, is being discussed at both places.—"Montgomery (Ala.) Advertiser."

Dr. Payne has an automobile now. We expect to hear of several more in the near future.—"Anderson (S. C.) Intelligencer."

The use of automobiles is becoming more and more general throughout Tennessee. This fact is shown by the number of automobile licenses which are being granted in the office of Secretary of State Morton. Recently these licenses have been granted at the rate of three or more each day. Since January 1, 1908, a total of 83 licenses have been issued. This does not include between fifteen and twenty transfers which have been recorded.—"Nashville (Tenn.) Banner."



Posting Entries for the Annual Tour of the A. A. A. and Contests for Glidden and Hower Trophies.



Well-traveled Long Island Road, Included in Greater New York, Illustrating Dust Problem Unrelieved.

THE ONE QUESTION OF THE DAY: THE ROAD PROBLEM

BY SIR JOHN H. A. MACDONALD, K.C.B., IN "THE MOTOR," OF LONDON.

FOR fifty years the road—after the advent of railways—was looked upon as a more or less negligible quantity in national affairs. One could ride or drive for a whole day without meeting one vehicle in every half mile, and, on some roads, on which at the beginning of the nineteenth century there was a considerable amount of traffic, not a single carriage of any kind would pass in an hour. To keep up roads in good condition for such sparse traffic would have been waste of labor and of money. During the latter half of the century all the roads were suffered to deteriorate. People grumbled, but that was all. There was an instinctive feeling that to seriously ask for anything better meant an increase of tax rates without any corresponding practical gain. It was in this condition of things that our highways were found when the advent of power traction revived the road as a means of long-distance communication. They were unfit for use as roads in the sense of being really ways for traffic.

Such having been the state of things, it is not to be wondered at when the roads began to be used once more and a hundred vehicles passed in a day where five passed formerly, that the wear and tear on these villainously ill-constructed and ill-tended roads should have caused much breaking up of surfaces, and called for more outlay to put and keep in efficient order. Of course, the blame was laid on the motor car. It was declared that it injured the roads more than did the horse traffic. This was quite untrue. The advent of the motor carriage added largely to the number of vehicles upon the road, and it was this, combined with the fact that the roads were already bad and incapable of carrying horse traffic without injury, which caused the outcry. But it was not realized that if horse traffic had suddenly been increased by several hundred per cent. on the ill-laid and ill-tended roads the destructive effect would have been infinitely greater. This was not appreciated at first by Roads Boards and District Councils.

The cry was that power traction must be prohibited on the existing roads. On every hand one met with the suggestion that the motorist should be ordered off the roads and must have roads made for himself and not put his wheels on those already existing. It appeared to be the idea of those who had not taken up the new mode of road transit that the traffic should be regulated to suit the roads that were provided, however bad they might be, rather than that when there was a development of traffic the road should be kept up so as to carry it. The things that were said put one in mind of the story of the mother who made it a matter of complaint against her child that when she had provided—as she thought—suitable clothes, it had the impudence to grow out of them, and that if it chose to get so big as that it should find its own clothes.

The time has come when the motorist, in his own interest—

which is, in the end, the interest of the whole community—must put forth every energy for obtaining improvement of the roads. He must din it into the ears of those who are dull of hearing on the matter that in improvement of the roads is to be found relief for present discomfort, convenience for pleasure and for commerce, economy in locomotion expense and great increase to the national wealth. Those who will not hear must be made to hear this; those who will not see what is before their eyes must be made to see.

There is no one now, who is not a fanatic or a lunatic in hatred of power traction, who does not know and confess, however reluctantly, that the power vehicle is a permanency on our roads, and that road traffic is becoming as important as it used to be in the days of the mailcoach and the carrier's cart. And, as the population is so enormously increased since those days, the actual number of vehicles put upon the road will be very much greater than it has ever been before. The roads which were narrowed by converting their sides into green pastures for cottagers' cattle and hay-making grounds for the food of the road authorities' horses, must once more be widened to the extent necessary for safety and convenience. The most scientific system of road making must be adopted and efficiently carried out.

Locomotion will always be cheaper on good roads than on bad. For it will be faster and less injurious to the power used for haulage and to the vehicles. This is well illustrated by what happened in the early days, when the coach began to supersede the horse as the traveler's means of conveyance. Two instances will suffice. The first coach service between London and Dover, a distance of a little more than eighty miles, took three days to make the journey. The first coach service in Scotland, between Edinburgh and Glasgow, required two days to accomplish the distance, although it was only forty-two miles. Does anyone doubt that the improvement of the roads which made it possible for these journeys and other similar journeys to be completed in half the time taken at first did not constitute an addition to the wealth-producing power of the country, diminishing the cost of wear and tear of animals and carriages, and the expense of the journeys to travelers, and facilitating the rapid transaction of business by intercommunication between one place and another being accelerated.

Everyone who is interested in motor traction, whether for pleasure or social purposes, whether for business facility or goods transit, or has the still more direct interest of being engaged in the manufacture of or dealing in power vehicles for whatever purpose, will act wisely if he devotes some energy to enforcing upon our authorities, legislative or administrative, the necessity of the present great revival of road use being encouraged by a wise and courageous policy of improving the

roads, as a certain means of adding to the financial and social prosperity of the nation.

Let it be borne in mind that we are a race which is not easily moved out of a groove into which we have been led or have fallen. The British temperament is well expressed in the oft-repeated saying that, "what was good enough for my grandfather is good enough for me." When the three-days' coach service was organized between London and Dover it was denounced in the public prints as an uncalled-for innovation, and it was declared emphatically that no such rapid, rushing service (?) was required. In the same way, when the first hackney vehicle was put upon the streets of London, running about six or seven miles an hour, it was inveighed against by people, who maintained that no citizen's life would be safe if such carriage were allowed to ply at these dangerous speeds in the streets.

Well, a great deal has happened since then, and a great deal more is going to happen now. The establishment of what was called fast (?) traffic in those early days led up to the study of the road, which had its results in the great achievements of Macadam, who, be it remembered, began his work as an amateur

enthusiast. The establishment of power traction on roads—and it is established permanently and forever—will have the same result. But that it may be as little delayed as possible, and that all may benefit by it now, and not later, it should be taken up vigorously. This has been done in measure already, but it has only been one of the many things engaging the attention of the best mechanical engineers.

The time has come when the road is the one question of the day. **The motor vehicle is now a thoroughly practical instrument for locomotion, whether for passenger or goods traffic.** That its efficiency may not be handicapped by the badness of roads is the question of the hour—the one great question which it is the duty of all motor organizations and all motorists to press upon public attention and upon which it is a duty to give the authorities no rest until the work of road improvement is taken up in a thorough manner, and pushed on vigorously. That good roads can be made at a reasonable expenditure, when initial cost and subsequent maintenance are put together, is certain. The only thing that is uncertain is how long it will take to overcome the visinertia of officialdom.

THE PRESERVATION OF IMPROVED ROADS IN NEW JERSEY

By ROBERT A. MEEKER, NEW JERSEY STATE SUPERVISOR OF ROADS, IN ANNUAL REPORT.

OUR good roads are becoming so worn by the continually increasing automobile traffic that the problem of maintaining them in their fine condition is one that confronts us constantly. What shall we do? How shall we do it? Is there any known substance that will withstand the constant attrition of rapidly revolving auto tires? If not, is there any remedy that will reduce the cost of maintenance and prolong the life of our hard roads? Many answers have been made to these questions, many methods have been suggested and tried, many materials have been tested, and still the problem is not solved. Extremists on both sides have come forward and argued loud and long. The aggrieved property owners propose that the roads be allowed to wear down to the large stone, when they will be so rough that the autoist will avoid them. Then, say they, the dust nuisance will be abated, and the highways will be safe and convenient for pedestrian and horseman.

The enthusiastic automobilist says the roads should be kept in constant and perfect repair; that no ruts should be allowed to form, and that no holes large enough to hold a pail of water should ever be permitted on the surface. "True," replies the resident taxpayer, "but who is going to pay the bills in order that he may enjoy the pleasure of having his lungs, lawn and house filled with stone dust?" The autoist replies, "We pay a license fee and an occasional fine, which help to maintain the roads." Mr. Taxpayer scornfully answers, "Yes, about one-eighth of the cost." Thus the merry war goes on, and we are no nearer the solution of this vexed problem than when it first presented itself.

The conservatives of both sides feel that something should be

done, and that there is something of truth in the contentions of each side, hence have proposed many methods of relief. The first and most natural is that of sprinkling with water. This lays the dust and cements the surface, but must be repeated so often that it is too expensive, hence many other substances have been tried, with varying degrees of success. Among these may be mentioned crude oil, coal tar, asphaltum oil, applied hot or in solution with ammonia, and compounds having the power of absorbing the suspended moisture of the atmosphere, the most common of which last is salt, but none have thus far proven entirely satisfactory. Either they are too costly or the results, if good, are only transient.

A careful study of the problem on the New Jersey roads leads us to the conclusion that there is only one remedy; that is, to distribute the traffic. To this end it will be necessary to build practically parallel roads between our principal cities and resorts, at the same time widening our old roads, thus dividing and distributing the travel, and likewise the wear.

We have some such routes now. By building a few short links here and there we can increase their number, and if at the same time the old roads are widened, the travel will be divided and distributed to such an extent that the wear will be materially diminished. This proposition is entirely feasible, as a glance at our road will quickly show.

The construction of these short stretches will not only distribute and consequently reduce the wear, but will also open up new territory to development, and thus enhance property values, as well as promote the comfort of all the people, whether they live beside or travel over our improved roads.

SPOKANE MOTOR CLUB INAUGURATES A FARMERS' DAY

SPOKANE, WASH., May 22.—What appears to be the most progressive move in the good roads campaign has been originated by the Spokane Motor Club, and will be carried into effect as soon as the necessary preparations can be made. Members of the club and other autoists interested in the movement are to assemble with their cars at a given rendezvous on the date set, the farmers for miles round having been previously invited to do likewise. Each car will be given over to the transportation of a farmer and his family from the central gathering point, and the farmer will be given an opportunity of judging of the condition of roads traveled over from the autoist's standpoint.

The real object of the "farmers' day" is to destroy the last remaining vestige of prejudice against the automobile. The autoists will meet the agriculturists more than half way, and will make the most of the opportunity thus presented, to state their case to the farmer in a way that the latter can appreciate as he will be in a position to see things as they are viewed by the autoist. The Northwest Automobile Company, Franklin representatives at Spokane, have been largely instrumental in fostering the idea of a "farmers' day."

It is hoped that the movement thus inaugurated will be taken up by automobile clubs throughout the country.

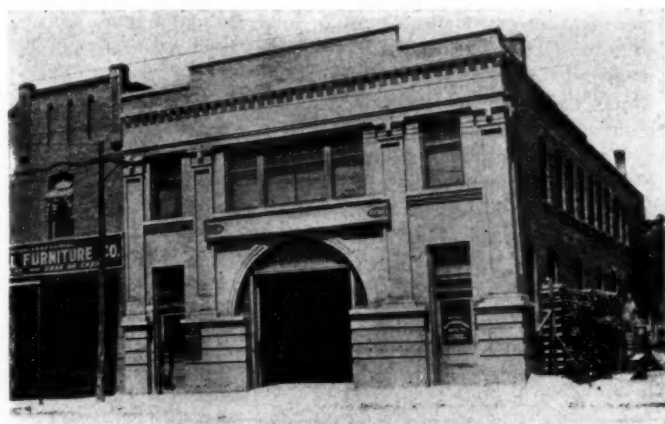
AUTO ENTHUSIASM BOOMING IN SOUTHWEST

By F. S. SLV, TRAVELING CORRESPONDENT FOR "THE AUTOMOBILE."

FORT WORTH, TEX.—This is my last stop in Texas, and it is easy to see that business is in a good condition here, even without the dealers' statement to that effect.

There are about 130 cars in the city, but as yet no club has been organized. The roads are simply of dirt formation, but are good during the dry weather, though not so favorable after it has been raining for some time. At the present time, an improved form of gravel road is under construction to connect this city with Dallas.

There are four garages, run by Hamilton Clough, who handles the Stoddard-Dayton, Jackson, and Jewell; Thomas Abbott, who has the Maxwell; H. H. Lewis, representing the Buick, and F. J. Boas, who does not do any agency business.



A Typical Garage Building in Ft. Worth, Texas.

From what I have seen of Texas, it is easy to appreciate that it is a State that will ultimately come to be one of the largest users of automobiles in the country, population considered. It is truly a State of magnificent distances, and the average Easterner who has heard the same expression used in connection with more or less familiar things at home, can form no conception of what it means out here.

Oklahoma Citizens Are Strong Buyers.

OKLAHOMA CITY, OKLA.—Here is a boom center in automobiling without a doubt, as none of the cities that I have been in since striking this part of the country has had half as favorable report to make. It is reported that the Oklahoma Motor Car Company has contracted for no less than 200 of the small four-cylinder Fords and 50 of the six-cylinder type.

A very large part of this firm's business is with the farmers, to whom a great many of the small cars are sold. It can boast of one of the largest and best equipped salesrooms and garages that I have seen since leaving New York City.

There are now about 250 cars in use in Oklahoma City, and they are being added to at the rate of fully 30 a month, or practically one a day, from which you can judge of the extent of the autoing enthusiasm here.

In spite of this, however, the town cannot as yet boast of a club. The roads through the entire territory are nothing but the old wagon trails and are in exactly the condition that the wagons left them, but they are quite passable in dry weather, even at that. A few of them have been "worked," but so far as I can learn there has been little or no actual road building, as we know it in the East.

In addition to the Oklahoma Motor Car Company, which handles the Ford, Rambler, and Pope-Waverley electrics, there is the Severn Auto Company, representing the Cadillac; Fritz Brothers, the Reo and Premier; Alko Garage, handling the

Pope-Toledo; C. F. Elerick, the Tourist, and the John Deer Plow Company, the Moline. Every one of these concerns maintains a garage, beside which there is the Jeffreys Auto Company, which also runs a garage but does not sell any new cars.

Little Rock, Ark., Is Progressing Well.

LITTLE ROCK, ARK.—Although there are about 65 cars in use here, beside a flourishing club of 25 members, of which Moorehead Wright is president; Irving S. Hirsch, secretary, and Perry Stiff, treasurer, there is but one concern in the automobile business. This is the Little Rock Auto Company, which handles the Franklin and the Buick and runs the only garage. Mr. Ladd, the president of this company, reports that business is very much better than it was last year at this time.

The club has not been organized long enough as yet to have accomplished much, but expects to do a great deal during the coming summer toward arousing auto enthusiasm. Among other events, a run is planned to Memphis, and will be held some time this month. There are several good roads leading out of the city, and the ordinary country roads are in very good condition in dry weather, although they are quite the reverse when it is wet.

Arkansans Are Enthusiastic Autoists.

FORT SMITH, ARK.—But eighteen months ago this town could boast of exactly two automobiles and half the population had a habit of coming out to "rubber" every time one of them went by, while their simultaneous appearance on the street in one place drew a crowd that all but impeded their progress. Now



One of Oklahoma's Representative Business Houses.

there are not only 42 cars owned here, but every owner, as well as the dealers, belongs to the Ft. Smith Auto Club, a progressive step in the organization line that might well be patterned after by many cities having vastly more cars in use. John Vaile is president of the local club; George Lyman, vice-president, and Fred Reutzel, secretary and treasurer.

The club is becoming a great power in the good roads movement throughout the State, and has even repaired several short stretches of bad road at its own expense. There are a number of macadamized roads running out of the city in different directions.

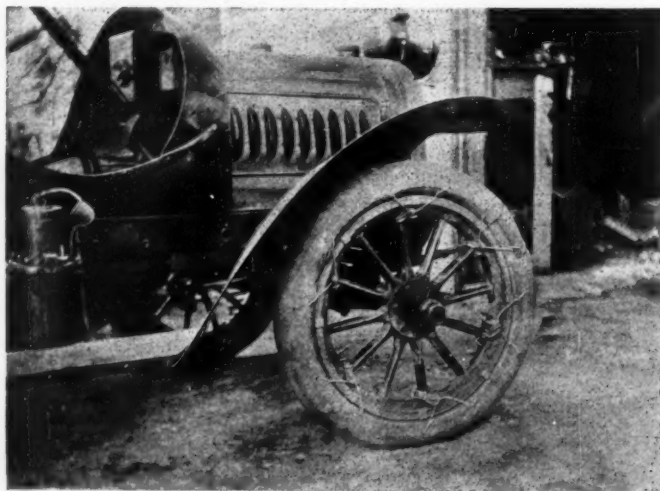
The Ft. Smith Auto & Supply Company has just completed a modern garage and salesroom of which many a larger city could well be proud. This concern runs the only garage here, and in addition handles the Franklin and the Buick, while W. T. Blocker represents the Ford, and Gus Boehmer handles the Reo. For the past few months business is reported as having been a little backward, but the prospects for the season are good.

EFFECTIVE TIRE PROTECTORS THAT ARE EASILY MADE

By A. D. HARD, M.D., MARSHALL, MINN.

THE rough and rutty roads of the West call for more than ordinary provisions against wear on pneumatic tires, especially on the sides where the hard baked ground forming the walls of deep ruts tears the rubber from the fabric and then quickly prepares the casing for a first-class blowout. I have tried almost everything which has been suggested to enable me to disregard road conditions and still have a little rubber left on my rims. I now use the device which I am about to describe, because it is far ahead of anything which can be purchased for the purpose where effective service and small cost are concerned. I have briefly spoken of this home-made tire protector before in *THE AUTOMOBILE*, and, as a result, have had so many letters inquiring how it is made that I am compelled to answer them all with this one reply.

My automobile has clincher tires, 30 by $3\frac{1}{2}$ inches, and this description applies to that size, though any sized tire may be used by varying the measurements to suit. My protector is made of casings which have been discarded because of rim cuts, blowouts



How the Home-made Tire Protector is Fastened.

or other injury, not being completely worn out. The old casing is cut in two, cross section, choosing an injured part if there be one, so that it may be eliminated by cutting off the injured part from one end. The beads which fit into the flanges of the rim are then cut off with a stout knife, and the protector is placed around the tire that it is intended to protect. If the old casing has not been shortened to get rid of some bad portion, the protector will lack four inches of surrounding the wheel, which may be filled in by a small section of another old casing.

This short piece may be fastened securely by using several wire belt links, with the points on the outside, to unite it to the ends of the old casing. Opposite every other spoke a mark should be made on the sides of the old casing, beginning with the spoke which should be in the middle of the small section. Three inches on either side of these marks, and about $\frac{3}{4}$ -inch in from the margin, holes should be made through the walls of the old casing with a $\frac{1}{4}$ -inch punch, such as is used by harnessmakers for heavy leather. Pieces of number 9 galvanized iron wire 12 inches long are bent like a wide-open V, and hooks one and one-half inch long bent on the ends, the hooks at right angles to the plane of the V. These wires are hooked through the holes in the sides of the casing with the points outward, and the ends bent down and around the base wire. This will give six retaining wire loops on each side, spaced to come opposite each other, and in line with the six alternate spokes of the wheel.

Half-inch wide rawhide straps fifteen inches long are then used to hold the protector on, each strap passing through the

V-shaped wire loops on either side of the wheel, and on both sides of the spoke. These six straps are drawn moderately tight before the tire is pumped up, and when inflated the protector should fit quite snugly all around. The wires on the sides serve not only to hold the protector in place, but they protect the shoe from side wear in ruts. The tread will not wear off as fast as the tread of an ordinary tire, because it is not under similar tension, the surface yielding somewhat to any tearing action of road impediments, instead of being gouged out. Dust will get into the space between the tire and protector, but it will quickly work out at the point where the short section is spliced in, and will do no harm. If these protectors are placed only on the front wheels they still will save the wear on the rear tires almost as much as though they were also similarly covered. This is due to the fact that the protector increases the diameter of the front tires about three-fourths of an inch, and this increase in size serves to make a path for the rear wheel which is larger than the rear wheel tires.

If placed on the rear wheels it increases the speed of the car by increasing the diameter of the drive wheels. Nearly all injury to tires is guarded against by this form of protector, and the tire may be pumped up much tighter than ordinarily, yet not decrease the resiliency, because of the extra amount of yielding rubber on the tread. Cuts and surface injuries are taken by the cheap protector, saving the expensive tire. Running on a deflated tire thus protected does but little harm, as the large amount of rubber between the rim and the ground obviates bruising of the tire and rim cutting.

Very few nails are long enough to go through both protector and tire to produce punctures, and the fabric of the tire never becomes exposed by wear to the destructive action of water or oil. Tires do not heat in use, because the large amount of heat conducting material in contact with the tire quickly dissipates the heat. If placed over a worn and weakened casing the tendency to blow-outs and other injuries is obviated, and the old casing can be trusted to wear about as long as a new one would without the protector. The cost of these protectors is almost nothing. If the old casings are valued at seven cents per pound as old rubber they are worth about one dollar each. The labor and straps will not cost to exceed a dollar and a half for each protector, making them cost only five dollars a pair, and they are better than any leather tread ever made at any price. The enclosed photograph shows how the protector looks on the wheel, and will serve to more fully explain my plan of construction.

AKRON'S TIRE FACTORIES IN FULL BLAST.

AKRON, O., May 25.—There is no panic among tire manufacturers at present. Never before were tires ever put out in such quantities in this city as at present. What surprises the manufacturers at present is the permanency of the movement. A month or more ago there was noticed a sudden increase in orders for automobile tires, and the manufacturers replaced their full force of tiremakers which almost entirely had been laid off during the winter months, when trade was at a standstill. The little spurt, as manufacturers chose to call it, was attributed to the re-equipping of 1907 machines by owners and not to any demand for 1908 cars, and it was expected that the rush would be soon over.

But there has been no let-up as yet, and at present the Goodrich, Diamond, Goodyear, Firestone and other local companies are working their fullest capacity to supply the demand. An official of the Goodrich company said this week: "We are far behind our orders and cannot begin to manufacture fast enough to keep up with the trade. The rush of orders has grown into an avalanche, and we believe that the activity will continue. The local tire plants began running night shifts a month ago."

THE other day in Paris four blasé individuals were sitting, in the mid-afternoon, on the terrace of a café in the Boulevard Montmartre, just where the Rue Montmartre crosses that busy thoroughfare. One of these individuals suggested a race to the Café de la Paix, half a kilometer away, down hill and along the Boulevard des Italiens, through that always dense throng of busy folk and idlers, and across the Place de l'Opera, as congested a public square as one finds anywhere in the world, save at the entrance to Brooklyn bridge in New York City during the rush hours.

Paris street traffic is commonly supposed to be entirely unregulated, and the Englishman, used to the admirably controlled traffic of London streets, protests loudly, if unintelligibly, each time he is nearly run down by the careering Paris *cocher* and his *sapin*. All is not lawlessness, however, the Paris *agent de police* and his white baton held in air is now a common, if unlikely figure at the corners of many crowded Paris streets and as far as his services go they are fairly efficient, though not yet up to the London standard.

New traffic regulations had just gone into effect and the four confident Parisians each chose for himself the means of making the *étape* between Paris' two popular cafés. One chose an ordinary cab, the *voiture à cheval* or *sapin* indigenous to Paris; another an autotaximeter, as being more speedy after it once got to moving; the third elected to go by autobus, and the fourth simply started out to walk.

The distance was not great to be sure, but the conditions were sufficiently arduous to make the affair interesting though the stakes were simply *aperitifs*, the Frenchman's substitute for the "five o'clock" at the Café de la Paix, opposite the French Académie Nationale de Musique, which all the world knows as "The Opera."

RESULTS: The autobus and the man on foot arrived in a dead heat; the walker simply wormed his way in and out of the slow-moving traffic and finally arrived; the autobus which carried the other winner did practically the same thing, though the chauffeur was put on his mettle by an ample *pourboire*; and by a fortunate position in the slow-moving, wriggling line of traffic succeeded in blocking the auto-taxi on two or three occasions, and so crossed the Place de l'Opera and deposited the winner

AN ORIGINAL RACE



at the same time and place as the man on foot arrived. Time, nine minutes, not too fast for safety, one thinks; but then there are those exceedingly difficult conditions to take into

consideration. The cab or *fiacre* was hopelessly behind, and only arrived at the end of thirteen minutes, having been blocked en route here and there on the roadway by the traffic.

The auto-taxi arrived in eleven minutes, two minutes after the autobus, and two minutes before the *fiacre*.

The autobus met the following obstructions en route, all of which it passed magnificently, handled intelligently as it was by its *mécanicien*—the Paris omnibus company has *mécaniciens* in charge of its autobuses, not merely chauffeurs. Perhaps that's why they are so well handled.

The autobus had stopped at the corner of the Rue Montmartre, and our lucky concurrent mounted the back platform just as the *mécanicien* let in the clutch and swung the vast rattling omnibus out into a twenty-five-foot open space that his eagle eye had chanced upon just at that moment.

Just beyond there was a horrible tangle, which, however, straightened itself out automatically with but a moment of time lost. At the Rue Richelieu came the second stop, but they were almost at once en route again, at a speed of certainly not more than four kilometers an hour, a long line of cabs, carts and omnibuses streaming along in Indian file. Opposite the Credit Lyonnais, as luck would have it, came a chance at last to get on "top speed." The gears were changed with a crash, and off the autobus went—for perhaps 50 meters. At the Rue Chaussée d'Antin a complete stop. Then making way again, another stop just before reaching the Place de l'Opera, the simple white baton of a Paris policeman barring the way.

Two minutes' wait, then a rush across to the Café de la Paix on the opposite side of the Place. "Stoppe!" said the intrepid voyager to the conductor as he prepared to descend. But there on the pavement beside him was the man on foot.

The problem would seem to solve itself thus: that all automobile traffic—automobiles, autobuses, and auto-taxis—should have special thoroughfares set apart for their use. Then, and then only, will the new locomotion become, in the cities, really efficient. Perhaps some day this millennium will arrive, before familiar on the Acme stock cars during the past few years.

CONCERNING THE ACME RACER FOR VANDERBILT CUP RACE

THERE will be at least one six-cylinder car entered for the Vanderbilt Cup race, advices from the builders of the Acme being to the effect that their entry will be of this type. The entry of a multi-cylinder car in a classic road event is nothing startlingly novel, sixes and even an "eight," having figured in the elimination trials for the Vanderbilt years ago, but the entry of a six-cylinder at this time is particularly interesting, owing to the great amount of discussion that has been going on regarding the various advantages embodied in this type, as compared with cars provided with the smaller four-cylinder engine.

Apart from the fact that the motor for the Acme entry is to be of the six-cylinder type, and that its dimensions will be 5 inches "square," i.e., bore and stroke the same, nothing is as yet forthcoming regarding its design or construction, although it is to be presumed that this will be something differing from the usual Acme standards as represented by the touring cars of the latter make, although it is stated that in all other respects the Acme Vanderbilt racer will closely adhere to the construction

familiar on the Acme stock cars during the past few years.

An interesting question has arisen over the fact that some of the material that will go into this racing car is of foreign origin, much of the steel being the Krupp chrome nickel, which is specified for such parts as the shafts and gears of the change speed gear set. This is the material used by the makers in the building of their stock cars, but in view of the fact that the rules governing the race specify that racing cars must be constructed in their entirety in the country which they are entered to represent, it was thought necessary to obtain a special ruling on this point in order to definitely settle the question thus raised. However, it will be noted that the rules only specify that the construction must be carried out entirely in the country of the car's origin, and that they are silent when it comes to the question of the origin of the materials. Therefore, there is not likely to be any difficulty so far as this is concerned. Good progress has been made in the building of the car and it is expected that it will be ready for its first road trials at an early date so as to have plenty of time for tuning up.

AERONAUT GLIDDEN AFTER LICENSE.

PARIS, May 22.—Both Delagrang and Farman have temporarily abandoned the Issy-les-Molineaux ground, and the vast military field is as deserted as ever it was before the advent of aeronauts. Leon Delagrang has shipped his Voisin apparatus to Rome, and has left, together with one of the Voisin brothers and a staff of mechanics, to attempt a fifteen-minute flight for an \$8,000 prize, offered by the Turin Association. Farman, who has been searching for a new training ground near Ghent, in Belgium, will doubtless follow his rival, and attempt to snatch from him the time record in Italy. Later he will make attempts on the open ground at Ghent, first with his present machine, and later with the Flying Fish that Voisin is now completing and that Renault is fitting with an eight-cylinder air-cooled engine.

America is at present actively represented at the Aero Club of France Park on the Saint-Cloud ground by Tourist Glidden and Aeronaut McCoy. The latest ascent of the two Americans was a trip from the Saint-Cloud ground to Villeneuve St. George to the South of Paris. Mr. Glidden intends to get his diploma as a pilot of the Aero Club of France before returning to the States.

RAIN CAUSES ATLANTA RUN POSTPONEMENT.

ATLANTA, GA., May 23.—Owing to the constant rains that have prevailed for the past three weeks, the Atlanta-Macon endurance contest promoted by the Atlanta Journal, has been postponed for three weeks or more, being set for some time in June. The deferred date has not been definitely decided and will depend upon road conditions as the latter are what caused the postponement. The long continued wet weather has been responsible for putting the roads in very poor condition and it is generally considered that it will take some time for them to become fit to run the event on.

The committee appointed to fix the distance table which will form the basis for the official running schedule, went over the course recently in Professor J. H. Smith's Pope-Hartford. Professor Smith is chairman of the committee and drove his fellow members over the course. They are Dr. Thomas P. Hinman, Charles Elyea and John E. Smith. The total distance one way between Atlanta and Macon is 95.3 miles, and it is anticipated that controls will be established at Griffin, 39.9 miles, and Barnesville, 56.4 miles, in addition to those at the start and turning point.

WILL BE GOOD SPORT AT DELAWARE'S GAP.

PHILADELPHIA, May 23.—The Public Ledger's four-day tournament in the Poconos promises to be even more successful than its projectors had hoped for. That portion of the local automobile contingent that is always going round with a chip on its shoulder has become interested, and June 24, 25, 26, and 27 will in all likelihood witness an exodus to the Monroe county mountains. Louis J. Bergdoll, the local amateur crack, ran up to Stroudsburg last week to size up the possibilities of the coming tournament. He found the hill at the Gap all that the managers of the tournament said it was—a course that would demonstrate the merits of the best cars and drivers. He also pronounced the rise at Canadensis an ideal course for a hill climb "on the high," and it has been decided to give drivers in the open classes an opportunity to try their cars on this hill for separate trophies.

The routes for the double-header endurance run on the first day, June 24, from New York and Philadelphia, have been selected. From the metropolis the route to Stroudsburg will be via Tarrytown, Middletown, Port Jervis, Milford, and Bushville. From Philadelphia the contestants will journey via Doylestown, Easton, Portland and the Delaware Water Gap, thus avoiding the necessity of going through the State of New Jersey with its prohibitive license laws. The route around the anti-automobile State is much more picturesque.

THE AUTOMOBILE CALENDAR. AMERICAN.

Shows and Meetings.

- June 25-27.....—Detroit, Third Annual Summer Meeting of Society of Automobile Engineers.
- Dec. 31-Jan. 7...—New York City, Grand Central Palace, Ninth Annual Automobile Show, conducted by the American Motor Car Manufacturers' Association, with Exhibits by the Importers' Automobile Salon, Inc., Alfred Reeves, general manager, 29 West 42d St.
- January, 1909...—New York City, Madison Square Garden, Ninth Annual National Show of the Association of Licensed Automobile Manufacturers. (Exact date to be announced.)
- February, 1909...—Chicago, Coliseum and First Regiment Armory, Eighth Annual National Exhibition, National Association of Automobile Manufacturers. (Exact date to be announced.)

Race Meets, Hill Climbs, Etc.

- May 30.....—Boston, Readville Track, Race Meet, Bay State Automobile Association.
- May 29-30.....—Minneapolis, Minn., 300-mile Endurance Run, Minneapolis Automobile Club.
- May 30.....—Bridgeport, Conn., Sport Hill Climb, Bridgeport Automobile Club.
- May 30.....—Wilkes-Barre, Pa., Glant's Despair Hill Climb, Automobile Club of Wilkes-Barre.
- May 30.....—San Francisco, Endurance Run under the auspices of the Automobile Dealers Association.
- June 5.....—Jamaica, L. I., Straightaway Time Trials, Long Island Subway Celebration Committee, Assisted by Long Island Automobile Club.
- June 6.....—Worcester, Mass., Dead Horse Hill Climb, Worcester Automobile Club.
- June 24-27.....—Chicago, 1,200-mile Reliability Run, Chicago Motor Club.
- July 4.....—Lowell, Mass., 250-mile Road Race, Lowell Automobile Club.
- July 4.....—Wildwood-by-the-Sea, N. J., Annual Speed Tournament, Motor Club of Wildwood.
- July 7-8.....—Buffalo, N. Y., National Convention of the American Automobile Association.
- July 9.....—Buffalo, N. Y., Start of the Fifth Annual A. A. A. Reliability Touring Contest.
- Sept. 5-9.....—San Francisco-Los Angeles Reliability Run, Automobile Dealers' Association of San Francisco.
- Sept. 14.....—Chicago, Annual Economy Run, Chicago Motor Club.

FOREIGN.

Shows.

- May 17-June 2...—Moscow, Russia, International Automobile Exposition, Automobile Club of Moscow.
- December.....—Paris, Eleventh Annual Salon de l'Automobile, Grand Palais, Automobile Club of France.

Race Meets, Hill Climbs, Etc.

- May 1-31.....—Automobile Taxicab Competition, France, Automobile Club of France.
- May 31.....—Russia, St. Petersburg to Moscow Race.
- June 1-18.....—Reliability Trials for Pleasure Cars, Automobile Club of Great Britain.
- June 14.....—Mount Cenis Hill Climb, for Voiturettes.
- June 9-17.....—Touring Competition for the Prince Henry of Prussia Prize, Germany, Imperial A. C.
- June 15-19.....—Scotland, Scottish Reliability Trials.
- July 6.....—Voiturette Grand Prix, Dieppe Circuit (Automobile Club of France).
- July 7.....—Grand Prix of Automobile Club of France, Dieppe Circuit.
- July 13-17.....—Ostend, Belgium, International Race Week, Automobile Club of Ostend.
- Aug. 12.....—Ardennes Circuit Races and Coupe de Liedekerke, Automobile Club of Belgium.
- Aug.....—France, Coupe de la Presse, Automobile Club of France. (Exact date to be announced.)
- Aug. 29-30.....—France, Mont Ventoux Hill Climb, Vauclusien Automobile Club.
- Sept. 1-8.....—French Voiturette Contest, Auspices "L'Auto."
- Sept. 6.....—Bologna, Italy, Florio Cup Race, Automobile Club of Bologna.
- Oct. 11.....—Berlin, Germany, Gordon Bennett Balloon Race, Aeronautical Club of Berlin.

SICILIAN WINNER TO COMPETE IN "LITTLE" GRAND PRIX

PALERMO, SICILY, May 15.—With a little one-lunger measuring but 3.9 inches bore, an average speed of 28.5 miles an hour has been accomplished in Europe's first road race of the season, over 186 miles of the most tortuous, precipitous, and mountainous road of this mountainous country. Giuppone, ex-cyclist and motor-cyclist, is the man who has won the Sicilian vioturette race, his little Lion-Peugeot, which led him to victory having the honor of beating the heavy car record established two years ago by Cagno.

There were eleven starters lined up in Indian file opposite the splendidly decorated stands at Bonformello at 7 A. M. of Sunday, May 10, the head of the line being held by Naudin on a Sizaire-Naudin, a position which was given him because of his victory last year.

Mechanically France only was represented in the race, the three firms engaged being Lion-Peugeot, Sizaire-Naudin, and De Dion. Among the drivers the tricolor had not all the honors, for Vincenzo Florio, donator of the cup and founder of the Targa which bears his name, was at the wheel of one of the small two-cylinder De Dions. Giuppone, the winner, also claimed Italy as his patrie.

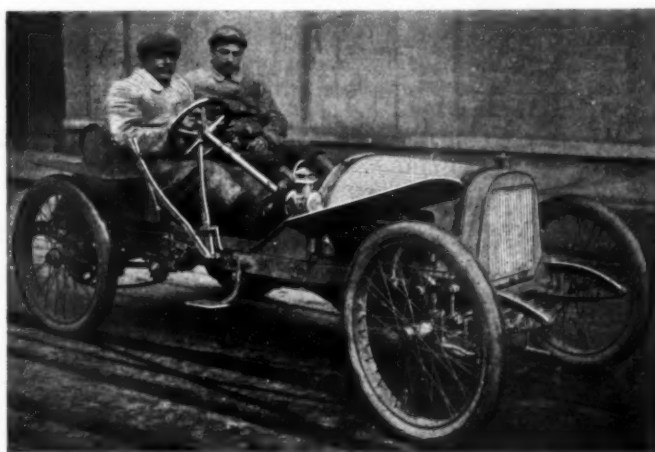
At the end of the first of the two rounds, a distance of 93 miles, Guippone was at the head, his Lion-Peugeot having covered the mountainous course in 3:16:53. Vincenzo Florio had abandoned, together with three other competitors.

The length of the course made it somewhat uninteresting for the spectators, and it would have been really dull but for the admirable telegraphic service which early on the second round brought in news of the overturning of both Naudin and Sizaire, without, however, any accident to the men. Giuppone's victory

was then practically certain. Summarized, the result of the race is:

Lion-Peugeot; driver, Giuppone; average, 28.5 miles an hour.	6:31:30
De Dion; driver, Cammarata.....	6:50:49
De Dion; driver, Isaca.....	7:11:39
De Dion; driver, Olsen.....	8:07:06

The winning car was a single cylinder of 3.9 inches bore and 5.5 inches stroke. Unlike most of the French viotettes, final



Giuppone, Lion-Peugeot, Winner of the Sicilian Vioturette Race.

drive was by double sidechains. The De Dion cars all had two-cylinder engines of 4.9 inches bore. The winning Lion-Peugeot as well as the two Sizaire-Naudins are engaged to compete in the vioturette Grand Prix on the Dieppe circuit.

GRAND PRIX ENTRIES MAY BE INCREASED TO FORTY-EIGHT

PARIS, May 22.—It is most likely that there will be 48 cars to start in the French Grand Prix, July 7, for Mors, though not yet officially engaged, has three racers under construction and declares that the double entrance fees will be forwarded to the Place de la Concorde before the end of the month. Since the early days, when success came by leaps and bounds, there have been hard times at the Mors factory and a closing down last year which at one moment looked like a permanent cessation. New financial interests and more vigorous management have recently made a complete transformation and a return to the racing game is one portion of the modern program. Jenatzy has been engaged as racing driver, his two companions yet remaining to be chosen to pilot the other cars of the same nationality.

The four-cylinder cars, the first of which will leave the factory

for road tests this week, have the maximum bore of 155 millimeters and a stroke of 170, which translates to about 6.6. A feature of the engine is that the four separately cast cylinders are double jacketed, one jacket enclosing the circulating water and the other some special substance, the nature of which will not be revealed, for carrying of heat. The details of this feature of the engine are being kept secret. Valve operation, as on so many Grand Prix racers, is by overhead rocker arm, both inlet and exhaust valves being in the head. Main drive has been adopted, the gear set and differential being in one casing, providing three speeds forward and reverse by independent lever. It is declared that the engine has developed 120 horsepower on the testing block and that the maximum speed on the level is 85 miles an hour.

CIRCUIT ARDENNES TO BE HELD AUGUST 12.

BRUSSELS, May 22.—Belgium has decided to hold its annual automobile race on the fast Ardennes circuit under the international rule limiting bore of four-cylinder engines to 155 millimeters. This makes complete the acceptance, in Europe at any rate, of the Ostend rule, France, Italy and Belgium having adopted it and no high-power car races being held under any other conditions. The Belgian meet has been set down for August 12 on the fast Bastogne circuit, the scene of many a record-breaking race. Two other speed tests will be held the same day, one for small runabouts competing for the Crawhez Cup and the other for touring cars running for the Coupe de Liedekerke. The small races will start at 4 A. M., the powerful cars being sent away over the same course at 10 A. M. Entries are received for the 155 millimeter race until June 15.

HEMERY AND WAGNER IN RUSSIAN RACE.

PARIS, May 22.—Twenty-four cars of all categories are united for the St. Petersburg-Moscow race to be run in connection with the Moscow exhibition, May 31. Main interest lies in the class for racers of more than 130 millimeters bore, which has united a 1908 Grand Prix Benz to be driven by Hemery, a special 150-millimeter Berliet, three 1907 racers from Dietrich, two from Fiat, a Darracq, an Itala and a Mercedes. Wagner will handle last year's Targa Florio races in the 106 to 130 millimeter class, and will have as competitors a Berliet, Nagent, N. A. G., and Darracq. A British Humber and an Italian Clément are alone in the 77 to 105 millimeter class, and seven cars share the low power classes for one, two or four-cylinder engines. There is a promise of considerable automobile trade being done with Russia, a fact that is realized by French constructors.

THE AUTOMOBILE

Vol. XVIII

Thursday, May 28, 1908

No. 22

THE CLASS JOURNAL COMPANY

Flatiron Building, Madison Square
New York City

H. M. SWETLAND, President

EDITORIAL DEPARTMENT

A. G. BATCHELDER, Managing Editor
R. F. KELSEY, Associate Editor C. B. HAYWARD, Engineering Editor
W. F. BRADLEY, Foreign Representative

BUSINESS DEPARTMENT

A. B. SWETLAND, Business Manager
LOUIS R. SMITH FRANK B. BARNETT
W. I. RALPH, 1035 Old South Building, Boston, Mass.
C. H. GURNETT, H. E. WESTERDALE, 1200 Michigan Ave., Chicago, Ill.

Cable Address - - - - - Autoland, New York
Long Distance Telephone - - - - - 300 Gramercy, New York

SUBSCRIPTION RATES:

United States and Mexico - - - - - One Year, \$3.00
Other Countries in Postal Union, including Canada - - - - - One Year, 5.00
To Subscribers—Do not send money by ordinary mail. Remit by Draft,
Post-Office or Express Money Order, or Register your letter.

FOREIGN SUBSCRIPTION AGENTS:

ENGLAND:—W. H. Smith & Sons, Ltd., 186 Strand, London, W. C., and all their
railroad bookstalls and agencies throughout Great Britain; also in Paris at
248 Rue de Rivoli.
FRANCE:—L. Baudry de Saunier, offices of "Omnia," 20 Rue Duret, Avenue de
la Grande Armée, Paris.
GERMANY:—A. Seydel Mohrenstrasse 9, Berlin.

Entered at New York, N. Y., as second-class matter.
The Automobile is a consolidation of The Automobile (monthly) and the Motor
Review (weekly), May, 1902, Dealer and Repairman (monthly), October, 1903,
and the Automobile Magazine (monthly), July, 1907.

Copies printed in 1905 - - - - - 730,000
" " in 1906 - - - - - 791,000
" " in 1907 - - - - - 888,900

JUST A PLAIN STATEMENT OF FACT.

The American Automobile Association is the only national body of automobilists in this country. The Automobile Club of America was the first automobile club formed in this country. When the clubs of the various European countries first instituted a congress, it was a natural sequence that the A. C. A. should have a voice and speak for this country. Subsequently the American Automobile Association, to meet the needs of the pastime and industry in this country, was organized, and to it came the control of racing and touring and other automobile activities of a general scope. Through a combination of circumstances the A. C. A. was continued as the foreign spokesman of the A. A. A., which had a somewhat varied formative period.

But a year and more ago it first gave positive evidence of the real reasons for its existence, thereby unquestionably causing the apprehension and jealousy of the Automobile Club of America, a coterie in which has tenaciously hugged the idea that the club was and should be national in its operations. Utilizing a disagreement with the New York State Automobile Association over legislative matters, and therein assuming an absolutely untenable position, the A. C. A. flocked by itself, and recently has been endeavoring to use its "foreign relations" as an asset with which to embarrass and undermine the American Automobile Association. The effort is doomed to failure, absolute and humiliating, for it is a matter of

common sense that the general good of automobiling can only be accomplished by an organization which spreads its endeavors throughout the whole country, with local clubs, State bodies, and a cordon of national officers to look after its needs.

Saddled with an enormous debt, liable for fixed annual charges of thousands of dollars, no longer interested in the profitable conduct of automobile shows, the A. C. A. must assure itself of a substantial income from some source or other, and that is why the coterie controlling it desire the overthrow of the A. A. A.—a ridiculous task on the face of it and one which will fail simply because it does not deserve to succeed.

Truly it is a pity that the pioneer club of the country should not be satisfied to be a club itself and thus fulfill its proper destiny. But the handwriting on the wall, now plainly legible, is telling the story, even to those who have been persistently blind and selfishly mistaken in their frequently misdirected efforts to advance the use of the motor-driven vehicle.

The Vanderbilt Cup race will be a bigger success than ever before, and the puerile efforts of the A. C. A. to interfere with its success will only add to the prestige of the big American event.

It is logical, however, that the A. A. A. should figure in the international congresses of the future, and when the foreign clubs comprehend the American situation and realize that it is the A. A. A. which governs in this country, then that body will be asked to speak for America instead of the A. C. A., that no longer will be able to assume a position which now does not belong to it, either logically or morally.

* * *

ONE USE FOR ABANDONED CARS.

It generally has been thought that the cars of the earlier days were of a more fleeting order than their present day successors, and, so far as length of time in the service of the same owner is concerned, this is quite true. But the mere fact that these old cars have disappeared from view completely does not necessarily imply that they have passed away for good. Many of them are commonly accounted for by the fact that they have finally reached a stage where they are only salable in remote districts, and, strange as it may seem, not a few of them are said to have found their way abroad to places where there is no great premium on the latest models, for the reason that the latter are unknown.

A very large percentage of these old timers have not passed away for good, by any means, and even though their power plants are of a degree of efficiency which would make their travel slow and halting beside their latter-day brothers, their motors will still run day in and day out, and they are being utilized in numbers for stationary power purposes, where they may last for a great many years to come. As a matter of fact, not a few instances have come to light in which an automobile is serving its owner in the dual capacity of power plant and road vehicle, occupying one rôle during business hours in the small shop in which it is the boiler, engine and other essentials of the power installation rolled into one, while during the times of its owner's leisure it takes to the road. Many oldtimers doubtless will be doing shop service long after their origin is forgotten.

DECISIVE VANDERBILT ACTION BY A. A. A. RACING BOARD

THE Vanderbilt Cup Race for 1908 will be conducted under the rules made known weeks ago. The recent so-called protests of two foreign clubs, one of which has never supplied an entrant for the race, were utterly disregarded at the largely attended meeting of the Racing Board, held Tuesday last at the A. A. A. headquarters, No. 437 Fifth avenue, New York City. These protests, transmitted through a club which is no longer connected with the national association, were considered entirely out of order under the existing circumstances.

The A. A. A. is the governing body of automobile activities in this country, including racing, and the fact having been plainly established that it was in nowise holden to the so-called international rules for 1908, it seemed a most logical deduction that Americans could decide as to the conditions under which their big annual race contest should be held. There was no question concerning the unanimity on the proposition at the Tuesday meeting, which was attended by the following:

Jefferson deMont Thompson, chairman, who presided; William K. Vanderbilt, Jr., donor of the cup; A. R. Pardington, ex-chairman of the Racing Board; Thomas Henderson, president of the National Association of Automobile Manufacturers; Percy Owen, chairman of the contests committee of the Importers' Automobile Salon; and these additional members of the board: Frank G. Webb, Long Island Automobile Club; R. L. Lippitt, Rhode Island Automobile Club; Harry W. Knights, Bay State Automobile Association; H. A. Bonnell, New Jersey Automobile and Motor Club; E. R. Thomas, Automobile Club of Buffalo; C. J. Swain, Quaker City Motor Club, Philadelphia; Rossiter Worthington, A. G. Batchelder, H. T. Clinton, New York City; Mayor George W. Tiedemann, holding the proxy of Frank C. Battey, president of the Savannah Club, and Secretary F. H. Elliott.

President W. H. Hotchkiss was also in attendance at the session, and Mr. Henderson, besides representing the N. A. A. M., was proxy for Benjamin Briscoe, of the A. M. C. M. A.

Stand Taken by French Club Most Unreasonable.

Chairman Thompson brought to the attention of the board certain protests said to have been made by the Automobile Club of France and the Royal Automobile Club of England against the rules for the Vanderbilt Cup race for the year 1908, and at the request of Mr. Vanderbilt attention was called to a letter written by him to Chairman Thompson, in part as follows:

"The stand taken by the French Club is most unreasonable, seeing that for the past three years they have not recognized the Vanderbilt Cup, and their letter to this effect, introduced at this time, would, I think, be a reminder to them that they have refused to participate in this event for reasons known only to themselves. At the same time, the Association was never asked to send its representative to the Ostend meeting held on the 15th of July, 1907, and the minutes of the meetings of the A. A. A. do not refer to any power having been vested in the Automobile Club of America to accept on behalf of the A. A. A. any resolutions adopted at this conference.

"I also wish to bring to your notice the fact that when I presented the cup to the American Automobile Association it was with the intention of giving the American automobile manufacturers a chance of competing against foreign cars in a race to be held in this country, a contest much needed here, and one that I thought would tend to raise the standard of American cars. I believe it is the universal opinion of those interested in the sport that the above stated facts have been achieved.

"It is now, in my opinion, the time for us to notify the French Club of these facts, and receive proper recognition by them."

Text of Mr. Vanderbilt's Comprehensive Resolution.

After some general discussion of the protests, this resolution by Mr. Vanderbilt, seconded by Mr. Graves, was passed unanimously:

RESOLVED: That Jefferson deMont Thompson, the chairman of this board and of the Vanderbilt Cup Commission, be instructed to notify the corresponding boards or committees of the representative automobile associations and clubs of foreign countries that

the Automobile Club of America is a local club, situated in the city of New York, without national functions or jurisdiction, and

That all communications concerning national or international affairs must be addressed to the American Automobile Association at its headquarters, No. 437 Fifth avenue, New York City, or to the chairman of its respective boards; and

That so far as the rules of the Vanderbilt Cup Race for 1908 are concerned, on receiving a communication direct from any foreign association or club concerning such rules, this board will give such communication prompt and courteous consideration.

That the above resolution is not intended to effect local events and those not national or international in their character, except that sanctions must be applied therefor to the A. A. A.

Only Three Big Events to Be Sanctioned.

Chairman Thompson then called upon President Hotchkiss to address the board on certain matters of national and international policy, and, after a full discussion, the following resolution, offered by Mr. Thomas, and seconded by Mr. Vanderbilt, who stated that he cordially supported the policy of the association in preventing outlaw contests, was unanimously adopted:

RESOLVED: That the chairman of this board be directed to notify all foreign and American clubs and associations, as well as all foreign and American manufacturers, that the American Automobile Association, the national governing body in the United States, will hereafter annually sanction but three national or international events, namely, the Vanderbilt Cup Race for racing cars, the annual touring contest for the Glidden and other trophies, and the DeMont Thompson Cup contest for stock cars; and

That, in accordance with an understanding between the American Automobile Association, the National Association of Automobile Manufacturers, and the American Motor Car Manufacturers Association, as represented in a central conference committee of three bodies, the American Automobile Association will enforce the sanctioning privilege thus committed to it by disqualifying from further contests under its sanction all manufacturers, both foreign and American, and all drivers of whatsoever nationality participating in any race or contest for which a sanction shall be refused or, after notice, withheld.

The effect of this resolution will be (a) to limit national or international contests in the United States to three great events: that for the William K. Vanderbilt, Jr., Cup for racing cars, that for the Glidden and other trophies for touring cars, and that for the DeMont Thompson Cup for stock cars, and (b) to require all clubs and promoters of racing, hill-climbing, endurance and touring contests of a local character to apply for sanctions to the American Automobile Association. Outlaw contests will be penalized by disqualifying entrants and their drivers from all future contests sanctioned by the A. A. A. This action is taken in accordance with the agreement between the American Automobile Association and the manufacturing bodies mentioned, and is intended not only to put racing and other contests absolutely in the hands of the American Automobile Association, but to keep the number of automobile contests within proper bounds.

CHAIRMAN THOMPSON AND MESSRS. VANDERBILT AND PARDINGTON REITERATED THE STATEMENT MADE AT THE MEETING OF THE RACING BOARD HELD IN APRIL THAT THERE WOULD BE A VANDERBILT CUP RACE THIS YEAR AND THAT PRIOR TO JULY 1 THE COURSE AND THE DAY OF THE RACE WOULD BE ANNOUNCED.

Upon motion of Mr. Riker, seconded by Mr. Thomas, Chairman Thompson was authorized to name a committee to prepare the entry blanks for the Vanderbilt Cup race for the year 1908, to the end that the same might be published and distributed as soon as possible after June 1. F. G. Webb, Percy Owen, and A. L. Riker were named on such committee, and immediately began work on the preparation of the entry blanks.

Chairman Thompson read a letter from President Frank C. Battey, of the Savannah Automobile Club, which stated in substance that such a club had been approached by the secretary of the Automobile Club of America, but that their club had done nothing with regard to such a race.

VANDERBILT WILL BREAK GROUND FOR MOTOR PARKWAY

BY way of formally beginning the actual work of construction of the long promised Long Island motor parkway, William K. Vanderbilt, Jr., will, on Saturday, June 6, at half past three o'clock, turn the first spadeful of earth. It has been deemed most fitting and only just that the president of the parkway company, who conceived the idea of this great metropolitan automobile speedway and by whose persevering activity this most important project has been brought to the eve of realization, has well earned this honor. It is planned to make the starting of the building of the parkway somewhat of a ceremonial event. The place selected for the beginning of the work is at a point near Central Park, Long Island, on the Barnes tract at the intersection of the Central branch of the Long Island railroad with the Jerusalem road. It is expected that there will be a large and spontaneous outpouring of autoists to do honor to the occasion.

The awarding of the contract for the laying of the course awakened the fraternity and the public at large to the fact that the promoters of the parkway scheme were not asleep. The turning of the first spadeful of dirt will confirm the promise of the contract and make sure the start and progress of the great work. The management of the Long Island Motor Parkway has been content to fight its preliminary battles without flourish of trumpets and to herald only its actual accomplishments as the campaign progressed. There were seemingly insuperable obstacles to securing an unbroken right of way; but patience and diplomacy have surmounted them and the result is that there has been secured a right of way from the village of Mineola, Garden City and Hempstead, the western terminal to Lake Ronkonkoma extending over a distance of 35 miles. Throughout the entire length, the right of way is 100 feet wide, and in many instances 200 feet. The route in its course traverses many of the beauty spots of Long Island, unknown to the ordinary tourist.

The many possibilities of the Parkway are well known and have been discussed at length by its friends and promoters. When it is considered that all highways and railroads intercepted are to be crossed either above or below grade, and that throughout the

entire distance the highway will be free from speed traps, the benefits to be derived from its use by the man who maintains a summer residence on Long Island can readily be appreciated. As a specially prepared boulevard, the holding of contests of speed, endurance and economy, under actual road conditions, is rendered feasible.

It is interesting to note that practically the same men who were present when the organization of the parkway was first undertaken, are to-day serving in the capacities then assigned to them, as directors, members of committees and officials. This demonstrates the fixedness of purpose of the original promoters and places the ultimate construction beyond question of doubt.

It is interesting also to note that during the recent financial depression which has extended over a period of months, that men of large business affairs, believing in the future of the parkway, have interested themselves in a substantial manner by subscribing to its securities.

The offices of the company during the entire period have been maintained at the first address, No. 527 Fifth avenue, as well as the engineering office in Mineola, which has been a hive of industry from early morning until late at night for the past twelve months. A most effective engineering force, under the direction of W. G. Williams, the chief engineer of the company, has been formed, and has been constantly on the work of surveys, clearing side and center lines, preparing plans and specifications for numerous highway and railroad crossings, making careful study of the contours of the country.

The place where the inaugural will occur may be reached by automobile from Jamaica, by any one of the following routes: Jericho turnpike, direct to Jericho south through Hicksville to Central Park; Jericho turnpike to Queens, thence by the Queens-Hempstead turnpike through Hempstead to Central Park; Old Country road from Mineola to Hicksville, and south on Broadway to Central Park; Merrick road from Jamaica to Massapequa, turn north at Oyster Bay road to Central Park, other but indirect routes also being available.

NEW YORK'S ORPHANS NOT TO BE FORGOTTEN.

Failing an organization to take up the good work that was so ably carried out by the New York Motor Club, with Samuel A. Miles as chairman on two occasions, in treating the orphans of Manhattan Borough to an automobile ride to Coney Island, a number of public-spirited tradesmen recently got together and determined not to let the event lapse for want of proper support. A meeting was held in the Thoroughfare building, and the owners of the latter donated the use of an office as headquarters. R. G. Howell was appointed chairman of the car and parade committee, and when seen was enthusiastic regarding the prospects for a record-breaking orphans' day celebration this year. The date has been set for June 9, and as soon as an announcement to this effect was made in the press, offers of cars began to come in without solicitation, contrary to the experience of former years. In fact, the prompt voluntary offer of so many cars leads the committee to believe that it will be able to carry every child in the institutions of New York City and Westchester.

YARMOUTH SLIDES BACK TO DARK AGES.

YARMOUTH, N. S., May 23.—Following the example set by other municipalities and counties of the Province, Yarmouth has taken advantage of the opportunity presented by the recently enacted amendment to the motor vehicle law, to pass an ordinance forbidding the running of automobiles on the city streets from midnight on Friday to the same hour on Saturday of each week. The penalties are \$20 for the first offense, \$30 for the second, and \$50 for the third.

AUTOS USED DURING CLEVELAND STRIKE.

CLEVELAND, May 26.—The street car strike in this city has given a wonderful impetus to the automobile trade, but it has done more than that, for it has shown conclusively that in an emergency of this kind the auto is the one and only thing which can render valuable assistance. Ever since the strike was declared, the city has had a large number of cars in its service day and night, taking squads of police from one district to another. Officers are kept in waiting at the various precincts for riot calls, and the cars carrying them may be seen speeding across the city at almost any hour of the day or night. The police are free to admit that they would have a hard time coping with the riotous element but for the quick transportation afforded by the cars. The newspaper men have also availed themselves of this feature of modern life, and all four dailies now have three or four cars in service every day.

DUTY UPON AUTOS REPAIRED ABROAD.

WASHINGTON, D. C., May 23.—The Treasury department is advised that an appeal has been taken from the decision of the United States circuit court for the southern district of New York in the Case of United States vs. W. R. Grace & Co., involving the classification of an automobile repaired abroad. In view of this the Collector of Customs at New York has been instructed to continue to assess duty upon automobiles which have been repaired abroad, pending the final decision of the matter, which may not be made public for quite some time to come.

WHAT IS GOING ON AMONG THE CLUBS

PRES. EDWARDS REPORTS ON LONG ISLAND CLUB.

BROOKLYN, N. Y., May 25.—In making his report for the first half of the club year, ending June 1, President Charles Jerome Edwards, of the Long Island Automobile Club, congratulates its members and officers on its substantial growth and increase in influence during that period. He calls attention to the fact that the Long Island club is the only organization in New York City that is a member of the New York State Automobile Association and of the American Automobile Association, and that as such its scope of influence and advantage is very great, and its opportunity for serving its members is correspondingly increased. The club's finances are said to be in excellent condition, the second mortgage bonds having been all retired, while the first mortgage has been reduced by 15 per cent. during the year and a sinking fund created to pay off the balance.

According to the report, the membership has now reached a total of 472. The numerous activities taken in hand by the club are mentioned, among these being the fact that the contest committee of the club has in charge the straightaway time trials to be held on Hillside avenue, Jamaica, June 5. The Legislation committee, consisting of Messrs. Richardson, Webb, Cluff and Field, ably supported the Uniform Registration bill, introduced in Congress by Representative Cocks of Nassau county, and also did a great deal of work in forwarding the interests of the uniform automobile law, following the lines of the Connecticut law, which is generally recognized as fair and reasonable legislation. "It is unfortunate that this bill failed of passage during the last few days of the session," says President Edwards in the course of his report, "because, it is said, of the interference of some Manhattan automobilists, whose appearance was entirely unauthorized."

The Good Roads committee, consisting of A. R. Pardington, chairman, L. H. Allen and C. Litchfield, reports that the Highway bill which passed the Legislature shortly before adjournment, will create for Long Island a trunk line system of highways; one on the north side, reaching from the Nassau county line via Smithtown Branch and Port Jefferson to Riverhead, and one along the south shore, following in the main the Merrick road and its extension eastward. There will also be a link connecting the north and south roads, south from Riverhead. Among the other activities of the club are those of the Runs and Tours committee, consisting of Messrs. Lefferts, Alderman and Hunt, which is preparing an attractive program, and the Country House committee, which has charge of the recently acquired country house, at Bayshore, Long Island.

HELLER NAMES N. J. A. AND M. CLUB COMMITTEES.

NEWARK, N. J., May 26.—President Paul E. Heller has named the New Jersey Automobile and Motor Club's committees for the ensuing year. They and their chairmen are: Legal, William F. Kimber; house, Charles W. Baker; legislative, W. C. Crosby; membership, Frederick A. Crosselmire; race, William C. Shanley; auditing, John K. Gore; good roads, Joseph H. Wood.

The club now has about 900 members, and as applications are being received at the rate of five a day, Secretary LeMassena is confident that the membership roll will pass the thousand mark in the near future, probably during the month of June. Its greatly increased membership will be put to effective use by the officers of the club in waging their fight at the next legislature for more reasonable motor vehicle laws. Plans for this campaign are already being laid. The board of trustees of the club have appointed Dr. James R. English, Dr. Frank B. Meeker and Frederick A. Crosselmire a committee to arrange for an orphans' day outing which the club has decided to hold some time in June or July. It is also planned to hold an endurance contest in the fall, to be open to members only.

THOUSAND MILES FOR CHICAGO MOTOR RUN.

CHICAGO, May 25.—Delayed by the hill climb in the preparation of rules for its four-day reliability run next month, the Chicago Motor Club was unable to announce the regulations until to-day, when the technical committee completed its work. The report shows a revision of the plans in that, instead of asking the cars to make a triple century a day, the distance is shorn to 250 miles per diem, making a total of 1,000 miles instead of 1,200. There has been a segregation of the touring cars and the roadsters, and, while they will follow the same routes, they will be competing for a different set of prizes. There are four classes in each division and each class has a different schedule.

In the roadster class, A will be for cars listing under \$1,000, and the schedule calls for 16 miles per hour; class B is for cars from \$1,000 to \$1,999, and will do 18 miles per hour; class C, from \$2,000 to \$2,499, and class D, for cars from \$2,500 up, will do 20 miles per hour.

In the touring car division, class F is for cars from \$1,000 to \$1,999, and class F from \$2,000 to \$2,499, and their schedule will be 18 miles an hour. Classes G and H, the first from \$2,500 to \$3,999, and the other from \$4,000 up, will maintain a pace of 20 miles an hour.

Prizes will consist of trophies and medals. In addition there will be a trophy, which has been given by the Standard Oil Company, which goes to the car with the least gasoline consumption, figured on a ton mileage basis.

DOCTORS FORM AN AUTO ASSOCIATION.

ORANGE, N. J., May 25.—The Physicians' Automobile Association of the Oranges has just been formed here with a charter membership of 40 of the local healers who are advocates of the automobile. The officers of the newly organized association are: President, Dr. Edgar C. Siebert; vice-president, Dr. Palmer A. Potter; secretary, Dr. Stephen G. Lee; treasurer, Dr. Arthur W. Bingham. The board of governors is composed of the following: Dr. Thomas W. Harvey, Dr. Mefford Runyon and Dr. Richard D. Freeman. Quarters have been taken in the rooms of the William Pierson Medical Library Association in the Orange Free Library Building.

OHIO AUTOISTS TO TOUR TO BUFFALO.

CINCINNATI, May 25.—C. Gordon Neff, of the Automobile Club of Cincinnati, and vice-president of the Ohio State Automobile Association of the American Automobile Association, is setting an excellent example to his brother autoists in other States, by organizing a run of autoists from all parts of the "Buckeye" State to Niagara Falls and Buffalo, the dates being scheduled to reach the latter place in time to take part in the big legislative and good roads convention that will be held July 6-8. Mr. Neff is a member of the Good Roads committee of the three A.'s and is doing excellent work.

MARYLANDERS AFTER GOOD ROADS.

BALTIMORE, MD., May 23.—Members of the Automobile Club of Maryland, owners, dealers, manufacturers and agents in Baltimore and Howard, Frederick, Washington, Allegany and Garrett counties, which will be held at Hagerstown early in June for the purpose of inducing the State Highway Commission to lend its aid in a movement for one main artery of improved highways from Baltimore City, through Frederick, Hagerstown and Cumberland, to Grantsville, Garrett county. United States Senators John Walter Smith and Isidor Rayner, Congressman George A. Pearre, members of the legislature, the State road engineer, county road engineers, directors and commissioners and members of the press throughout the State have also received invitations

to attend the gathering. The State Highway Commission and Archer B. Hulbert, author of many articles on improved highways, have also been asked to attend. The plan in view is to utilize the old Baltimore and Cumberland turnpike and the old National road for this proposed vast improvement. The guests will go to Cumberland the day following the meeting, where a banquet and reception will be held.

The Good Roads Commission, headed by Governor Crothers, has inaugurated plans for improved highways in Maryland. The first step was an inspection visit the past week to southern Maryland. Similar trips will be made to the Eastern Shore the coming week and to the Western Shore beginning June 3.

WASHINGTONIANS WILL TOUR THREE STATES.

WASHINGTON, D. C., May 23.—Members of the Automobile Club of Washington are looking forward with interest to the club's initial tour of the year, which will take place May 29-31 and which will take the tourists into three different States—Maryland, West Virginia and Pennsylvania. The tourists will start at noon on May 29 and proceed leisurely to Harper's Ferry, W. Va., via Frederick. The second day's run will be from Harper's Ferry to Gettysburg, via Winchester, Martinsburg, Hagerstown and Waynesboro. Sunday will be spent in touring the Gettysburg battlefield and making the trip homeward. The route selected for this tour is through a country rich in historical interest, while the roads and scenery are the best to be found in this section of the country.

President Caverly and John K. Heyl and W. D. West were appointed delegates to the A. A. A. convention in Buffalo, July 7-9. President Caverly will bring to the attention of the convention the project of constructing a Lincoln memorial boulevard from Washington to Gettysburg. As the 100th anniversary of Lincoln's birth will occur next year, it is suggested that the proposed boulevard would be a fitting tribute to the martyred president. It is believed automobilists throughout the country will indorse the project.

ONE MORE CLUB FOR THE OLD DOMINION.

SUFFOLK, VA., May 26.—In response to a call signed by twenty-five of the forty owners of automobiles in the city, a meeting has been held resulting in the formation of the Suffolk Automobile Association, and the election of the following officers: President, C. A. Sharpe; first vice-president, William N. McAnge; second vice-president, Benjamin L. Saunders; secretary-treasurer, R. L. Gaskins. Application for membership in the State association of the A. A. A. was directed to be made by the secretary. Chief among the objects of the club as embodied in the call for the meeting were to secure speed laws, giving due protection to the public while not unreasonably hampering the use of motor cars for pleasure driving and also to promote highway improvement.

NEW HAVEN AUTOISTS ORGANIZE TO DO GOOD.

NEW HAVEN, CONN., May 25.—After many desultory efforts covering several years New Haven at last has an automobile club which bids fair to being a success. A club has been organized with thirty-two charter members, with these officers: President, Thomas G. Bennett; vice-president, Jacob P. Goodhart; secretary, Amos F. Barnes; treasurer, William H. Douglas. There will be five committees, membership, contest, rights and privileges, good roads, and sign post, each composed of three active members. Great care was exercised in drafting the constitution and by-laws, and these differ in several respects from those of most other clubs. Two clauses read as follows:

"The committee on rights and privileges shall have charge of all alleged infringements of the legal rights of the club or its members, and shall advocate and endeavor to obtain proper privileges for and protection of the members in the use of the highways and parkways.

"It shall be the duty of the committee to receive complaints from any person in regard to reckless driving or violation of any automobile statute or ordinance, or of the rules of the road, by any autoist, and immediately upon the receipt of such complaints

the committee shall send a warning to the person or persons complained of, in the name of the club. If a second complaint is received a second warning shall be sent, notifying the party complained of that unless he complies with the law the club will assist in his prosecution. If such person after the second warning shall continue to violate the laws of the State or the ordinances of any city, town or borough this committee shall bring the matter to the attention of the proper authorities and assist in the prosecution of such person in such manner as it shall deem best."

WILLIMANTIC CLUB COMPLETES ORGANIZATION.

WILLIMANTIC, CONN., May 25.—An enthusiastic meeting of the recently formed Willimantic Automobile Club was held here last week, at which the organization of the club was completed. Dr. John Weldon, who was elected president at the last meeting, was in the chair. The by-laws drafted by the board of governors were submitted and approved, and were subscribed to by 30 charter members. As there are only about 50 resident automobile owners in this section, the club has made a very good start. A letter was read from Guy K. Dustin, of the Connecticut State Automobile Association, asking the local club to elect a director in the State body. De Witt C. Hill was chosen for the place, and will attend the next meeting of the directors of the State association, to be held at the Atlantic House, Bridgeport, May 30. The matter of providing automobiles for the members of the local G. A. R. post on Decoration Day was also taken up, and the members of the club agreed to use their cars for this purpose.

BUFFALO CLUB WINS CASE AGAINST CITY.

BUFFALO, May 25.—A decision in favor of the Automobile Club of Buffalo in the action brought against Secretary Dai H. Lewis to test the validity of the municipal tax of \$5 a year, has just been handed down by the Court of Appeals. The case was tried in the first instance before Judge Hodson, of the Municipal Court, who ruled against the city on the ground that the municipality had no legal right to impose an additional tax on the use of an automobile. The opinion of the Court of Appeals reads, in part, as follows:

"When the occupation or use of a public street involves danger in some degree to the public, a license may operate as a partial restraint upon such use of the public streets. The purpose of the ordinance in question to restrain the use of motor vehicles in the public streets of Buffalo is so obvious that very little weight can be given to the fact that it is called a tax instead of a license. We think that the ordinance is a plain attempt to avoid the provisions of the motor vehicle law, and that it should not be upheld."

CLUBS RAPIDLY FORMING IN NUTMEG STATE.

HARTFORD, CONN., May 25.—Rockville, a manufacturing town about 15 miles east of this city, is the latest to add an automobile club to the State's rapidly growing list of organizations. A number of progressive autoists got together there recently and formed the Automobile Club of Rockville, several of the members already being affiliated with the Automobile Club of Hartford. The newly formed organization has already been admitted to the Connecticut State Automobile Association, and, through the latter, to the American Automobile Association, and has signalized its existence by preparing to hold a hill-climb on New England Hill in connection with the Old Home Week celebration—a typical Down East institution.

CLEVELAND CLUB'S RUN TO CAMBRIDGE SPRINGS.

CLEVELAND, May 26.—Starting the morning of Decoration Day, May 30, and continuing for three days, the annual run of the Cleveland Automobile Club to Cambridge Springs promises to be the best event of its kind ever held by the local club.

The run to Cambridge Springs is an annual event, but never before have such preparations been made to insure its success. Among other things which will be given for the benefit of the tourists will be an amateur minstrel show and dance. Non-members of the club may also go upon this run, first securing a card through a member. The distance to the Springs is approximately 110 miles and the roads are in very fair condition.

NINETEEN PERFECT SCORES IN INDIANA SEALED-BONNET RUN

INDIANAPOLIS, IND., May 21.—The first reliability run or sealed-bonnet contest ever held in Indiana was run May 20 by members of the Indianapolis Automobile Trade Association, covering a course of approximately 150 miles through Central Indiana. Out of thirty-seven starters, nineteen finished with perfect scores. Ten out of the fifteen cars in Class A, which was for machines listing over \$2,500, were perfect; five out of the six in Class B, \$1,500-\$2,500, went clean, and four out of sixteen in Class C, under \$1,500, escaped penalty.

Those with perfect scores were as follows: Marmon, three; National, two; Premier, two; Maxwell, two; White, Haynes, Buick, Rambler, Rapid, Lambert, Marion, Mitchell, Overland, Reo, one each.

Some of the worst hills in Indiana were encountered, and there were long stretches of dirt roads, and in several places the heavier cars sunk almost hub deep in them. The day, however, was perfect for such a contest. On Monday and Tuesday rains eliminated the dust, and on Wednesday the highways were just damp enough to keep dust from flying. There was just a trace of wind, and the sun shone brightly throughout the run. Tuesday afternoon the contesting cars were turned over to the technical committee for examination and sealing, and they remained parked on the Meridian street side of University Park all night.

Promptly at 7 o'clock, W. C. Marmon, driving a Marmon, crossed the tape as the first to start on the long run. Then the cars began leaving one minute apart, with ten minutes between classes, and every car left on time to the second. Leaving Indianapolis, the cars went north through Crow's Nest to the

road leading to Westfield, thence to Noblesville and Anderson, the latter city being the first checking station. From there the route led east to Muncie, thence to Newcastle, and from there to Indianapolis, through Dunreith, Knightstown and Greenfield, the last 40 miles being over the National road. At Anderson, while the cars were waiting to check in, the Buckeye Manufacturing Company, which makes the Lambert, gave the occupants of each car box lunches, and at Newcastle the Maxwell-Briscoe Motor Company provided roses.

The technical committee drew the line very closely, almost splitting hairs, in the final examination of the cars, yet despite this fact there was not a single protest from its decisions. A penalty of 25 points was incurred for each broken seal, with a penalty of two points for each minute spent in working on the car. Additional penalties were incurred for loose and broken parts found at the conclusion of the run. Without doubt the most interesting feature of the run was the perfect score made by a twelve-passenger Rapid 'bus, entered by Frank Grogan, an eighteen-year-old boy.

The rules and technical committee was composed of W. G. Wall, of the National Motor Vehicle Company; Howard Marmon, of the Nordyke & Marmon Company, and George A. Weideley, of the Premier Motor Manufacturing Company, chairman. The contest committee was: Frank Staley, of the H. T. Hearsey Vehicle Company; A. E. Vinton, of the G & J Tire Company; Frank Moore, of the Fisher Auto Company; P. D. Stubbs, of the Overland Automobile Company; Paul Smith, of the Indianapolis Motor Car Company, and George Weideley.

ALBANYITES OF NEW YORK STATE HAVE A SUCCESSFUL CLIMB

ALBANY, N. Y., May 23.—Though hill-climbing events have not been included in its catalogue of activities in the past, the Albany Automobile Club's first contest, which was held on Menands hill to-day, proved conclusively that the successful management of such an affair was something easily accomplished by the organization. The course had been affected somewhat by Friday's rain, but the treatment of oil it received subsequently put it in fine condition for the climb. A hill-climb is a novelty in this district and an immense crowd was attracted, lining the entire course from start to finish.

The free-for-all events and the special for six-cylinder cars provided the major portion of the excitement of the day. The former brought forth two double winners, C. S. Ransom's Stevens-Duryea "six" making the best time of the day, :53 1-5.

FREE-FOR-ALL TOURING CARS—ALL MOTIVE POWERS.

1. Stevens-Duryea (six)	C. S. Ransom.....	:53 1-5
2. Stevens-Duryea (six)	Samuel Parsons.....	1:09
3. Fiat	J. B. Taylor.....	1:09 3-5
4. Thomas Flyer.....	W. H. Buckley.....	1:10 2-5
5. Stevens-Duryea (light six).....	Karl Isburgh.....	1:10 3-5
6. Lozier	Parker Corning.....	1:12
7. Pierce Arrow.....	J. P. Randerson.....	1:20 2-5
8. Welch	Lucey Motor Car Co.....	1:23

SIX-CYLINDER CARS—\$6,000 AND OVER.

1. Stevens-Duryea	C. S. Ransom.....	:55
2. Stevens-Duryea	G. Y. Lansing.....	1:01 3-5
3. Stevens-Duryea	Samuel Parsons.....	1:10
4. Pierce Arrow	J. P. Randerson.....	1:12
5. Stevens-Duryea	Karl Isburgh.....	1:17 1-5

GASOLINE TOURING CARS—OVER \$3,000.

1. Locomobile	E. W. Leahy.....	1:09 3-5
2. Fiat	J. B. Taylor.....	1:10
3. Lozier	Parker Corning.....	1:11 3-5
4. Thomas Flyer.....	W. H. Buckley.....	1:12 4-5

GASOLINE TOURING CARS—\$2,001 TO \$3,000.

1. Thomas 40.....	J. C. Birdseye.....	1:06 4-5
2. Pope-Hartford	Troy Auto Exchange.....	1:18 2-5
3. Elmore	George W. Walt.....	1:45

GASOLINE TOURING CARS—\$1,251 TO \$2,000.

1. Maxwell	W. Klingeburg.....	1:33
2. Maxwell D	Central Auto Co.....	1:45 1-5

in the free-for-all touring cars, while he brought the same car home a winner in the six-cylinder event in :54 4-5 seconds.

In the free-for-all runabouts, Chauncey D. Hakes' Apperson "Jackrabbit" made the half-mile grade in :58 1-5, and in the event for runabouts listing above \$3,000 repeated its performance by winning in exactly the same time. A Knox was second and a Locomobile third.

In addition to the Stevens-Duryea "six" taking first in the touring car and six-cylinder events, cars of the same make also took first and second places in each, while in the latter a Stevens-Duryea was also third, a Pierce Arrow coming in fourth. There were four other events for gasoline touring cars listing at different prices, and five events for runabouts, the prizes offered in each case consisting of gold cups.

GASOLINE TOURING CARS—\$851 TO \$1,250.

1. Cadillac	1:36
-------------------	-------	------

FREE-FOR-ALL RUNABOUTS—\$5,000 AND OVER.

1. Apperson Jackrabbit.....	C. D. Hakes.....	:58 1-5
2. Knox Model L.....	Knox Auto Co.....	1:01 1-5
3. Locomobile	Taylor Auto Co.....	1:04
4. Locomobile	Taylor Auto Co.....	1:05
5. Stoddard-Dayton	J. Smith Jacobs.....	1:10 3-5
6. Stoddard-Dayton	C. A. Warren.....	1:12 1-5
7. Knox Model H.....	Knox Auto Co.....	1:14
8. Oldsmobile	A. J. McClure.....	1:15
9. Reo	B. A. Burtiss.....	2:00

RUNABOUTS—\$3,000 AND OVER.

1. Apperson Jackrabbit.....	Chauncey D. Hakes.....	:58 1-5
2. Locomobile	Taylor Auto Co.....	1:05
3. Locomobile	Taylor Auto Co.....	1:05

RUNABOUTS BETWEEN \$1,251 AND \$2,000.

1. Maxwell K.....	Central Automobile Co.....	1:28 3-5
2. Stoddard-Dayton	C. V. Yukers.....	1:39
3. Aerocar	Schenectady Auto Exch.....	1:44

RUNABOUTS BETWEEN \$851 AND \$1,250.

1. Reo	B. A. Burtiss.....	1:46 3-5
--------------	--------------------	----------

RUNABOUTS—\$850 AND UNDER.

1. Ford Model L.....	C. F. Weeber Mfg. Wks.....	1:35 1-5
2. Ford Model S.....	F. B. Harrington.....	1:35 2-5
3. Ford Runabout.....	F. W. Battershall.....	1:41 1-5
4. Maxwell	Schenectady Auto Exch.....	1:49

THOMAS WALLOWS STEADILY THROUGH SIBERIAN SLOUGHS

ACCORDING to advices received by the *New York Times*, from Nikolsk, Siberia, the Thomas crew has been struggling against odds that make the mud of the Iowa prairies and the snows of the Rockies mere child's play by comparison. Schuster's account of their struggles thus far, states that they only saw the sun once from Friday to Monday, and shortly after its reappearance were again overtaken by a violent thunder storm which converted the whole stretch of lowland into a miniature sea, so that it was necessary for the crew to wade ahead in order to pilot the driver. They finally landed in the middle of a stream, from which it was necessary to extricate the car with the tackle and the route was retraced several miles to a small village where the night was spent. It was learned there that the Protos had been making good time over the railroad ties while the Thomas crew was struggling with the mud and had gained a good lead, and the Americans will henceforth abandon the road for the right of way.

The start from Vladivostok was delayed from Wednesday to Friday owing to a last desperate attempt of St. Chaffray of the De Dion crew to continue in the race. The French car having been formally withdrawn, St. Chaffray determined to get a place on the Thomas and to insure this end quietly cornered the avail-

able gasoline supply. He then asked for an interview with the American crew and offered his rights to the precious fluid for a place on the Thomas, which was indignantly refused by Schuster who would not consider the Frenchman's company on any conditions, even if they had to wait indefinitely. Lieutenant Koeppen and the Protos crew declined to take advantage of the American's predicament and waited until they could start together. American residents and Russian officials emptied the tanks of their launches while others contributed toward a sufficient supply to enable the Americans to get away after a delay of but two days.

The Russian officials have aided the contestants in every way, the Governor-General of the province sending his Adjutant along as a guide for the first stretch of 100 miles, while Schuster has been provided with papers instructing the commandants of all the Cossack posts along the route to aid the drivers in every way. The military authorities have also furnished maps and information concerning the roads and supply stations along the route. Captain Hansen, who is the Russian interpreter for the party, has found no difficulty in making arrangements. It required two days of the hardest kind of work to make 94 miles, during which the Thomas pulled the Protos out of the mud.

ONE ATTACK UPON NEW JERSEY LAW'S CONSTITUTIONALITY

TRENTON, N. J., May 25.—Not because the program had not been arranged with due attention to the details, but because the chief actor had not lived up to his part by staying arrested for violating the Jersey law, Judge Lanning, sitting in the United States District Court, dismissed the application of R. H. Johnston for a writ of *habeas corpus* to-day. In accordance with a plan outlined by X. P. Huddy, of counsel to the White Company, Mr. Johnston drove a White steamer into Trenton on Friday last without the formality of having procured a Jersey license. The Trenton police department had been notified well in advance, otherwise Mr. Johnston might have found it difficult to be arrested, but no less a person than police captain John J. Cleary took him into custody. There was the usual hearing at which the prisoner pleaded not guilty, and the magistrate fixed Friday, May 29, to hear the complaint. In the meantime Johnston followed the even tenor of his way by promptly departing for another jurisdiction, while his counsel drew up an application for a writ of *habeas corpus* to get him out of the supposed durance vile of a Jersey prison. The idea was to bring the matter before the Federal courts on the ground that the prisoner was engaged in interstate commerce, thus avoiding the long preliminary delay of dragging it through the State courts, but Judge Lanning thought the scheme was too transparent. There was no prisoner. Hence, the court had no jurisdiction to grant a writ for his release.

Mr. Johnston immediately became a prisoner in reality, upon

the dismissal of the application for the writ, and gave his machine as security for his appearance before Police Judge Harris next



H. R. Johnston Undergoing Arrest at Trenton, N. J.

Friday. Following the hearing of the case before the police magistrate, it is the intention of counsel to bring the case before the New Jersey Supreme Court on a writ of *certiorari*.

AUTO TRAPS NUMEROUS IN NEW JERSEY THESE DAYS

UP to this time there have been few auto-traps in that part of New Jersey around Englewood; but (emulating the example of various other places), two or three of the cities and towns in that district have started in to get their share of the autoist's spare change.

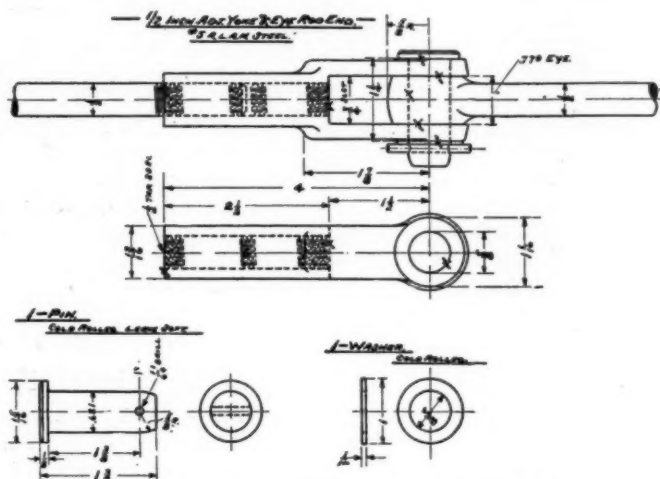
A week ago last Sunday the little town of Tenaflly had its "trap," and among the various arrests was the Mayor of Englewood, who left a matter of \$8 or so with the Tenaflly authorities. On the following Sunday Englewood had its own trap, and got back several times what its mayor was out a week before. This latter trap was located on Engle street,

between Palisade and Hamilton avenues, near the business center, where there is a more or less steady procession of autoists, especially Sunday afternoons.

We are informed upon reliable authority that within the past six years there have been only two accidents in Englewood—one of them due to carelessness on the part of the autoist, and the other to a deaf-and-dumb person, after which occurrence the autoist was exonerated. So far as we are able to learn, there has never been an accident in Tenaflly, and it is difficult to see any reason for the existence of traps in either one of these places.

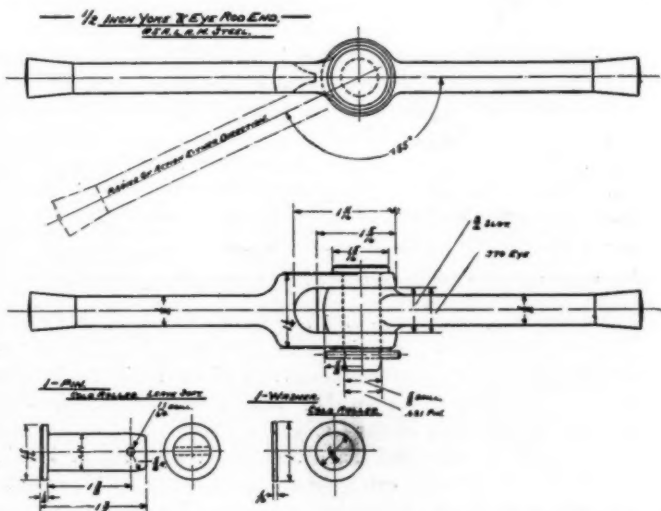
A. L. A. M. ADOPTS FURTHER STANDARDS.

In furtherance of its policy of adopting standard forms of construction wherever these may be consistently used by all the members of the association in the construction of their cars, the Association of Licensed Automobile Manufacturers has had its



Assembly A. L. A. M. Adjustable Yoke and Eye Rod End.

Mechanical Branch draw up specifications for standard forms of yoke and eye rod ends. This is the third formal set of standards adopted by the association, the first being that screws, nuts and bolts, while the second was the A. L. A. M. standard spark



Assembly and Details A. L. A. M. Fixed Yoke and Eye Rod End.

plug. The accompanying drawings show the details of the proposed standards for yoke and eye rod ends in the 1/2-inch size. The sizes given in the circular announcing the standard are 1/4, 5-16, 3/8, 7-16 and 1/2-inch. Copies of the circular in question giving detailed drawings of each one of the sizes mentioned, may be had by car or parts manufacturers on application.

FURTHER PROSECUTIONS IN LAMP LITIGATION.

Following up the injunction against the Saxon Lamp Company, forbidding the latter to manufacture or sell colorable imitations of the Rushmore designs, the Rushmore Dynamo Works, Plainfield, N. J., has further prosecuted this concern for failing to obey the court's order by bringing out a lamp differing but slightly in detail from the one on which the injunction was originally obtained. After hearing the case, Judge Ray decided that the defendant had wilfully and knowingly violated the injunction in question and adjudged him in contempt, imposing a fine of \$500.

ENGINEERS MEET AT CLEVELAND PLANTS.

CLEVELAND, May 23.—As a result of the new plan recently adopted by the Association of Licensed Automobile Manufacturers to have its technical men be given every opportunity to visit the plants of the different makers in the association, the Mechanical Branch met in this city yesterday.

The morning session was devoted to a discussion of the report on the recent checking tests made on the dynamometer of the Automobile Club of America in New York, a fortnight ago. Henry Souther, the recently appointed chairman of the technical committee of the Automobile Club of America, was present and expressed the gratification of the club as to the action of the Licensed Association in testing the dynamometer. Following the reading and discussion of the report, a paper on the two-cycle motor was read by E. W. Roberts, and this was in turn followed by a paper on combination valves for four-cycle motors, by C. E. Thompson, of the Electric Welding Products Company. The valves referred to are those in which a nickel-steel head is welded on to a carbon-steel stem. The fact that the metal may be injured by the high heat necessary for welding was brought out, and to overcome this it is the practice of the makers in question to resort to heat treatment after welding. Both papers were followed by discussions of the subjects in question.

In the afternoon, the engineers visited the plants of the Peerless Motor Car Company, the F. B. Stearns Company and the Winton Motor Carriage Company. Those in attendance were: A. L. Riker, chairman, and A. C. Schulz, Locomobile Company; George W. Dunham and C. J. Kryzanowsky, Olds Motor Works; Russell Huff, Packard Motor Car Company; E. H. Parkhurst and W. H. Staring, Peerless Motor Car Company; David Fergusson, George N. Pierce Company; J. G. Sterling, F. B. Stearns Company; John G. Utz, E. R. Thomas Detroit Company; Thomas Henderson, H. B. Anderson, C. D. Smith and Charles W. Mears, Winton Motor Carriage Company; E. P. Chalfant, assistant general manager of the Licensed Association; Henry Souther, consulting engineer, and C. F. Clarkson, secretary of the Mechanical Branch.

FRANKLIN SUCCEEDS WITH ALCOHOL MOTOR.

Although their experiments with alcohol as a motor fuel were productive of successful results at first, the engineers of the H. H. Franklin Manufacturing Company, Syracuse, N. Y., persevered and their efforts have now been attended with unlooked-for results. It will be recalled that only recently the Franklin engineers announced that their findings did not warrant the belief that there was any immediate future for the alcohol motor, and it was pointed out that even if gasoline and alcohol could be purchased at the same price the advantage in favor of the former would preponderate greatly. Since then, however, they have succeeded in perfecting an alcohol motor which shows as high a degree of efficiency as one using gasoline, and that without the expedient of employing a very high compression as has usually been found necessary. It also has the further advantage of being equally economical in the use of fuel, a consumption of as low as 1.05 pounds per brake horsepower hour having been achieved, while there are no detrimental effects on the motor itself from using this fuel. Were both fuels on a par, it would be equally economical to use either alcohol or gasoline in this motor, and this means a tremendous step in advance, particularly for commercial vehicle use, as the cost of fuel is an item of great importance in this connection.

The announcement to this effect has aroused a great deal of interest, particularly from distillers of denatured alcohol, the United States Industrial Alcohol Company immediately having undertaken an investigation of the Franklin motor. Apart from the fact that the new motor, which has been proven perfectly practical for automobile use, does not use a compression exceeding 90 pounds to the square inch, nothing concerning its technical details is forthcoming.

NOT SATISFIED WITH WHAT IS AVAILABLE.

CHICAGO, May 25.—Alfred Reeves, general manager of the American Motor Car Manufacturers' Association, is expected in Chicago shortly to discuss with the two local clubs a suitable location for the show which the independents may hold in Chicago next Winter. Manager Reeves has written the Chicago Automobile Club regarding the two locations offered by the club, declaring that the Dexter Park pavilion at the stockyards does not come up to the mark so far as location is concerned, although it has more than enough floor space.

The other building, the Seventh regiment armory, now in course of construction at Wentworth avenue and Thirty-third street, is admirably situated, but the floor space is insufficient. It is cut up into two floors, and the first floor would not begin to accommodate the manufacturers of cars. In the Dexter Park pavilion are held the annual stock shows and the affair draws out great crowds. Next winter there will be a spur of the elevated which will make it conveniently accessible.

TIREMAKERS CONSIDER PRICE-CUTTING.

CLEVELAND, May 25.—That the prices of automobile tires may be changed next year is the very probable outcome of the meeting of the tire committee of the Motor and Accessory Manufacturers, held in this city May 21. While no drastic action with immediate bearing upon the future was taken, the consensus of opinion is that a reduction in prices will be the final result. The meeting in this city was the result of continued price-cutting all over the United States for the past few months, and the tire committee decided to take some action upon the matter. The Cleveland branches of the tire companies have been powerless to stop the war, and appealed to the factories for help.

Another factor in the situation has been the club proposition, which the tire and accessory makers desire to have regulated before its further spreading. Club members securing inside prices is seriously cutting into the business of the accessory dealers and is generally considered detrimental to the trade, which fears that it may even extend to the buying of cars.

Within the next few weeks a letter will be sent to every automobile and tire dealer in the United States, laying the status of the matter before each one individually, and requesting an expression of opinion as to whether or not the price to the consumer had not better be changed. The tire men figure that if the price to the consumer is reduced somewhat, there will be less incentive to buy from the price cutters, and that they in turn cannot afford to offer goods at as low a figure as has been the case in the past. Another meeting of the tire committee will be called for July 25, and definite and lasting action will then be taken. At the meeting here practically every tire manufacturer in the United States was represented with the exception of the Michelin Company.

BOSTON REPORTS TRADE HEALTHILY BOOMING.

BOSTON, May 18.—The local automobile trade is experiencing a marked boom, and since the first of the month business has been better than during any similar period this season. All through the automobile districts the dealers are reporting a good business, and some of them are running short on prospective deliveries of certain models. The approach of Summer and good touring weather is given the credit for the expansion of business and the trade feels very well satisfied with the conditions and the prospects, as most of the sales now being made are for immediate delivery. Alvan T. Fuller, who handles the Packard, last week made his last delivery of the 1908 model of this car, and several other dealers, notably J. W. Bowman of the Stevens-Duryea, have oversold allotments of some models.

The excellent condition in the trade is reflected at the office of the Massachusetts Highway Commission where since the first of the month cars have been registered at the rate of 90 a day, the total registered since the first of the year being about 12,000.

CHAIRMAN THOMPSON APPOINTS MEMBERS.

Jefferson deMont Thompson, chairman of the A. A. A. Racing Board, has announced the appointment of Robert Graves and Harry T. Clinton as members. Mr. Graves is a pioneer American autoist, having entered cars in two of the Vanderbilt Cup races. Mr. Clinton is manager of the publicity department of the Association of Licensed Automobile Manufacturers.

QUAKER CHAUFFEURS' PROGRAM.

PHILADELPHIA, May 25.—To increase interest in its organization and to attract the better class of men, the Philadelphia Mechanical Chauffeurs' Association will, beginning Friday evening next, May 29, inaugurate a series of lectures upon mechanical subjects relating specially to the manufacture and operation of automobiles. The subject for the first lecture has been announced as "Magnetos," and will be handled by a representative of the Bosch Magneto Company, of New York.

REAL ESTATE MEN START AUTO CAMPAIGN.

PATERSON, N. J., May 25.—Realizing the value of the automobile as a means of showing property in outlying districts, the New York-New Jersey Real Estate Exchange has organized a campaign of personally conducted automobile trips to those sections of New Jersey in which development operations are now in progress. Under the guidance of Otto Kempner, president of the Exchange, the first of these trips was held last Saturday, a large party of New Yorkers interested in Jersey realty being carried out to this city, where they were met by a score of touring cars in charge of a committee consisting of E. H. Lambert, Louis A. Piaget, Henry Snyder and Judge Kerr. About 100 of the visitors were tendered a luncheon at the Hamilton Club, where the advantages of Paterson and its suburbs were extolled by Senator John Hinchcliffe, Dr. Shaw, Judge Van Cleef and others, following which the decorated cars paraded through the streets. Castle Lambert and its art gallery were inspected, the visitors were received by Mayor McBride at the city hall, and were later entertained at the North Jersey Country Club.

PHILADELPHIANS TO HAVE AUTOCABS.

PHILADELPHIA, May 25.—"Gasoline Row" was agog early last week over the arrival here of ten Thomas taxicabs. The excitement was due not so much to the arrival of the vehicles—for that had been expected—but that they were taken to the big new garage of the Bergdoll Motor Car Company, at Broad and Wood streets. Later it developed that R. A. Park, who, rumor has it, will manage the Thomas cab system here, had set up his desk in the Bergdoll office, and it was bruited along "the row" that those who had been storing their cars at the Bergdoll plant had been given notice to move at an early date. All of which is circumstantial evidence that the young millionaire brewer and crack driver at the head of the company is preparing for a comprehensive campaign to exploit the Thomas taxicab here. Although direct questioning both at the local Thomas agency and at the Bergdoll offices failed to elicit any definite information as to when the service will be inaugurated, it was stated in a general way that "plans were being perfected for an early start."

Further search for information led THE AUTOMOBILE man to establish motor cab service here developed the fact that the Quaker City Cab Company is contemplating adding such a Berliet cab service to its large horse-drawn outfit.

Further search for information led THE AUTOMOBILE man to the Bellevue-Stratford garage, where Manager Lewis gave out the information that within sixty days the Pennsylvania Taximeter Cab Company, recently incorporated in Camden with a capital of \$50,000, would have on the street at least 25 specially designed taxicabs of 24 horsepower and capable of carrying five passengers exclusive of the front seat. These vehicles are now being built at Chester, Pa., by the Hinckle-O'Brien-Lewis Co.

BRIEF ITEMS OF NEWS AND TRADE MISCELLANY

Up to the time of his death a few days ago, Henry A. Allen, of Shushan, N. Y., could doubtless lay claim to being the dean of amateur autoists. He was 93 years of age, but both drove and took care of his own car. He was as enthusiastic an autoist as many a man of a third of his years.

Canton O'Donnell, writing to a Denver friend from Dresden, Germany, says: "I saw an old two-cylinder Winton here yesterday; one of the '04 models. It looked good to me; just like a letter from home. Running just like the first one I ever saw, smooth as any two-cylinder ever made."

The Arkansas Valley Auto & Transit Company has been incorporated at Las Animas, Col., with a capital of \$25,000, to conduct a garage and general repair shop, and will also undertake the contract of transporting sailors to and from the new naval hospital at Fort Tyon. The new company is open for agencies of both cars and sundries.

Pirelli & Company, the Italian tire makers, who have their New York offices at 296 Broadway, are in a position to state authoritatively that the Zust car will continue in the New York-Paris, despite all rumors to the contrary. The Zust has been equipped with Pirelli tires throughout the race, and the makers are confident will bring them in to Paris among the leaders.

The P. & H. Tire Company, 1657 Broadway, New York, has just closed what is thought to be one of the biggest tire deals put through. It is a contract with Norvell, Shapleigh & Company, St. Louis, to take a minimum of 75 P. & H. tubes daily, their average now being 200 per day. The St. Louis house becomes the United States distributors, having the entire territory, except New York and New Jersey.

Coincident with the holding of the Long Island Subway celebration at Jamaica, the Jamaica Motor Car Company will open a new branch garage on Hillside avenue, near the corner of Flushing avenue. A large building constructed especially for the purpose is now nearing completion. It will also contain salesrooms for cars and sundries and complete lines of supplies.

Morton E. Converse, of Winchendon, Mass., the wealthy toy manufacturer, has just returned from a round trip to Washington, D. C., in his new Grout car. Mr. Converse took the car on this 1,200-mile trip right out of the factory and ran the entire distance both ways without having to make an involuntary stop. This is his second Grout and he is enthusiastic over the car's good points.

The Trojan Hydro-Pneumatic Wheel Company, Watervliet, N. Y., has just completed the installation of a set of their hydro-pneumatic springs to one of the 9,000-pound trucks being run in the service of R. H. Macy & Company, New York City. This is the first truck ever mounted on springs of this kind, and as the latter are the only ones of their class on the market the outcome will be looked forward to with considerable interest.

Announcement is made that there will be at least one, and probably two, of the new Hol-Tan cars in the coming A. A. A. Reliability tour this year. The factory in Massachusetts is making good progress on the series of cars now being turned out

and it is expected that cars will not only be on exhibition at the New York salesrooms very soon, but that the Hol-Tan Company will be in a position to make deliveries on orders.

Negotiations were successfully terminated last week for the exclusive use of the Elmore taxicab at the new terminal station in Washington, D. C., and this is but one of the cities in which the two-cycle cab turned out by the Elmore Manufacturing Company, Clyde, O., is rapidly making headway, as Chicago, New York and Boston are also operating Elmore cabs. Within a few weeks thirty of the Elmore taxis will be shipped to Washington.

As the result of the recent visit of two of the English directors, prominent in the affairs of the home company, the Spare Motor Wheel of America, Limited, has re-organized its selling forces. George S. Morrow, who has been located at the New York office, has been sent to take charge of the Chicago branch, and the headquarters of the company have been removed to attractive salesrooms on the ground floor of 236 Michigan avenue, a car with a Stepney wheel in use and a second on the running board being kept constantly ready for demonstrations. As copies of the Stepney spare wheel have already appeared, the company has begun actions against the infringers.

To demonstrate that the present day automobile is built to withstand any kind of usage, no matter how hard, and to prove that the American car can run indefinitely over all kinds of roads, the Premier Motor Manufacturing Company, makers of the Premier car, which has been the official pathfinder in laying out the Glidden Tour route, will start a Premier on Monday, June 1, making a century each day for 100 consecutive days. The car will be under observation by disinterested people. The run is unique and will prove valuable to motoring circles in general. The itinerary will be announced later. The car will not complete its endurance test until the first week of September.

"I find business quite as active as it was a year ago," said A. Atwater Kent, of the Atwater Kent Manufacturing Company, Philadelphia, Pa., in speaking of business conditions in the West. "Most of the larger factories are working full time and over time, to meet the sudden demand occasioned by the early spring, and those makers who have a practice of finishing their cars early are sold out, while others have found it necessary to put through special lots of cars for summer delivery. So far as I could see, the manufacturers who got scared and thought it necessary to curtail their product, are now sorry for it. Instead of cutting down our schedules, we increased them and are now thankful that we did so. We contemplate doubling our floor space in the near future."

In judging the value of tires for big cars, an important factor is the size and quality of the strip of rubber that, in the best makes, is interposed between the fabric, or envelope, of the outer casing and the tread; it is usually separated from the tread by one or two plies of fabric, called the "breaker." The pad of rubber thus intervening between the tread and envelope is called the "cushion," and its function is well described by E. H. Broadwell, of the Fisk Rubber Company, who says: "The cushion

is a sort of shock absorber and distributor, which prevents the blows from stones, ruts, and other obstacles, when hit by the tire, being borne by one or two threads, which would cause them to break and prepare the way, by cutting fellow threads, for a blow-out. In the Fisk heavy car type of tire, a pure rubber cushion of unprecedented size is used to distribute these shocks, so that the whole fabric shares in sustaining them.

NEW AGENCIES ESTABLISHED.

The Foss-Hughes Motor Car Company, which handles the Pierce-Arrow, Cadillac, and Baker electric cars in Philadelphia, has taken over the agency for the Pope-Hartford from the firm of Noblit & Fassett, which has gone out of business. The Matheson car, which was also handled in the Quaker City by the defunct firm, will for the present remain unrepresented there.

In order to be in a better position to take care of the New York trade, the Hartford Suspension Company, which recently removed its headquarters to 150 Bay street, Jersey City, N. J., has opened a branch office at 212 West Eighty-eighth street, near Broadway, New York City. It will be in charge of Ernest R. Waterman.

PERSONAL TRADE MENTION.

Roy H. Hagerling, formerly connected with the Central Pennsylvania Automobile Company, Harrisburg, Pa., is now identified with the Motor Car Company, Baltimore, Md., agents for the Thomas and Peerless.

F. J. Schafer, until recently with the Utica Motor Car Company, has gone into business for himself and has secured the agency for the Mitchell line. He has opened a garage and salesrooms at 221 Genesee street, Utica, N. Y.

Robert La Porte, for the past 16 years identified as a member of the selling force of the Hartford Rubber Works Company, has just left that concern to join the sales department of the H. H. Franklin Manufacturing Company, Syracuse, N. Y.

Frederick B. Hart, who has been acting as advertising manager for Thomas B. Jeffery & Company, Kenosha, Wis., has just severed his connection with that concern to accept a similar position with the Excelsior Supply Company, Chicago.

Stacy G. Carkhuff, secretary of the Firestone Tire & Rubber Company, Akron, O., has left for an extended business and pleasure trip to the Coast, where he will remain about a month. J. F. Singleton, advertising manager of the company, is now on the Pacific on a two months' leave of absence and the two will doubtless join forces. His place is being filled temporarily by W. G. Slater, of Cleveland.

George F. Kehew, for many years connected with the Pope Manufacturing Company, and up to recently representing the Wayne Automobile Company in New York, has just gone with the National Sales Corporation, 296 Broadway, New York, but will make his headquarters in Detroit, Mich. Mr. Kehew will devote his time particularly to ignition appliances, such as the Connecticut coils, timers, meter and quick detachable terminals; Buffalo mechanically controlled carbureters; Crown dry-cells; Soot-proof plugs and Pirelli cable, for all of which the National Sales Corporation acts as factory sales agents.

